

Dart Hawkesbury 1270 Aberdeen St Hawkesbury, ON K6A 1K7 Canada Tel (613) 632-5200

PO No	Supplier	Line Item No		Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Container No	Status	Receive Date	Price/Ur
O040033	ACI001-VC	1	1	Net 30	M17-4-R0,750	17-4 ROUND BAR .750: 17-4 PH/ S17400 / TYPE 630 SS ROUND BAR PER AMS 5643/ ASTM A664 GRAIN MUST BE ALONG LENGTH OF BAR MINIMUM YIELD TENSILE STRENGTH = 100 KSI MINIMUM ULTIMATE TENSILE STRENGTH = 150 KSI receive ft				36	6/15/2018	36		\$080894	Stock	6/13/2018	\$ 10.96 / H
		2.		35	M304R,500	304 SS roundbar .500 : MATERIAL: AISI 304/316 SS ROUND BAR AS PER ASTM A276 NOTE: AISI 303 NOT ACCEPTABLE receive ft				120		128		S080895	Stock	6/13/2018	\$ 2.33/ft
		3			M6061T6S1.250X6.000	6061T6 PLATE 1.250 X 6:000 : MATERIAL: 6061- T6/T62/T651 ALUMINUM SHEET AS PER QQ-A- 250/11 OR AMS-QQ-A- 250/11 OR AMS 4025 OR AMS 4027 OR ASTM B209 receive ft				12		121		5080940 046	Slock	6/13/2018	\$ 35.68 / ft
		4				M2024T3B0.250X4.500: MATERIAL: 6061- T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS-QQ-A-220/8 OR AMS-QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS-QQ-A-200/8 OR ASTM B211 OR ASTM B221 receive ft				20		20		S090897	Stock	6/13/2018	\$ 4.28 / ft
		5				606176 Bar 0.625 X 3.000 : MATERIAL: 606176 : MATERIAL: 606176 : MATERIAL: 606176 : MATERIAL: 606176 : MAS-QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B211 receive ft				12		12		S080898	Stock	6/13/2018	\$ 11.87 / ft
		6		a.		6061-T6 Bar .750 X .750 : MATERIAL: 6061- T6765176510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ- A-225/8 OR AMS-QQ- A-25/8 OR AMS-QQ- A-200/8 OR AMS-QQ- A-200/8 OR AMS-QQ- A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B211 receive ft				20		20	5	680899	Stock	6/13/2018	3 2.41 / ft
		7		M		6063 T6 SHEET 1.750 X 10.000 : MATERIAL: 6061-T6/T62/T651 ALUMINUM SHEET AS PER QQ-A-250/11 OR AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027 OR ASTM 8209 receive ft				6		6	S	080900	Stock 6	1/13/2018 \$	94.82 / ft
		8		M		9061-76 Aluminumbar 4.500" X 4.500": MATERIAL: 6061- 16/1651/76510/76511/762 ALUMINUM BAR PER 20-A-225/8 OR AMS-QQ- A-225/8 OR AMS 1117/4128/4115/4116 OR 2Q-A-200/8 OR AMS-QQ- A-200/8 OR AMS 4160 DR ASTM B211 OR ASTM B211 OR				4		4	S	080901 S	Stock 6	/13/2018 \$	128.02 / ft

PO No	Supplier	Line Item No	Rel No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Container No	Status	Receive Date	Price/Uni
*		9			M304B0.375X03.000	M304 SS bar .375 x 3.00 : MATERIAL: AISI 304/316 SS BAR OR AISI 304/316 SS PLATE AS PER ASTM A276 OR ASTM A240 NOTE: AISI 303 NOT ACCEPTABLE receive ft				12		12	<u> </u>	S080902	Stock	6/13/2018	\$ 13.02 / ft
		10		1	M304B1,000X1,000	304 Bar 1.00 X 1.00 : MATERIAL: AISI 304/316 SS BAR OR AISI 304/316 SS PLATE AS PER ASTM A276 OR ASTM A240 NOTE: AISI 303 NOT ACCEPTABLE receive ft						12		\$080003	Stock	6/13/2018	\$ 18.90 / ft
		11		×.		1010-1025 Steel Bar 1.250 X 2.250: MATERIAL: AISI 1010- 1025 OR ASTM A36/A366/A569/A570 OR OR CSA G40-21 38W/44W/50W/60W/70W CSA G40-21 OR 38W/44W/50W/60W/70W receive ft						12		8080904	Stock	6/13/2018	\$ 15.87 / ft
		12		-	MT-4140-S- 1.750X12.000	AISI 4140 Steel Sheet/Plate				6		6		S080905	Stock	6/13/2018	\$ 225.10 / ft
									Total:	272		274					

Plex 6/13/2018 1:59 PM Dart. Dubois. Pascal

1



DART AEROSPACE LTD 1270, ABERDEEN ST.

HAWKESBURY, Ontario, K6A 1K7

935, Boul. du Hâvre 935, Boul. du Hâvre Salaberry de Valleyfield (Québec) J6S 5L1 Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248 Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Shipped to

, Ontario,

Date Delivery date **Customer N°** 2018/06/13 2018/06/04 CLI0001056

Your order N° Processed by 40033 Eric Kaehlert

Salesman

**Credit Terme** Carrier Net 30 Days **OUELLETTE VALLEYFIELD** 

Instruction F-3 **Delivery Route** Att : CHANTAL LAVOIE Tél.: 613-632-5200 Page

אוסנו מכנוסוו	שבוויכו א הישוב							
Drodiet Description	Waish		-		PCS NB	_	Ir	Internal Use Only
rioduct pescription	Meidur	t Qty	O/M	CMD	EXP	в/о	IN	I S C OUT
1 ROUND SS 3/4 17-4PH NS	54	54.07 36.00	PI_\$CLB					
RSS-34174 9268					بر ×		- 1	
3 X 12' R/L ** CERTIFICATE **					تة (		26	JUN 1 3 2018
LINE# 1								
AC16977-TH-2018-06-11 Heat: 752410						,		ç.
2 ROUND SS 1/2 304 (R) RSS-12 <b>5730</b>	80	80.04 120.00	PI_\$CLB		3/13/2"		5.	JUN 1 3 2018
10 X 12' R/L ** CERTIFICATE **					32 / S		2.78	DAS
Heat: 1712154					* O			9-89



Shipped to

, Ontario,

DART AEROSPACE LTD

1270 , ABERDEEN ST. HAWKESBURY, Ontario, K6A 1K7

ACIER OUELLETTE INC.
935, Boul. du Hâvre
935, Boul. du Hâvre
Salaberry de Valleyfield (Québec) J6S 5L1
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Delivery date

2018/06/13

Date Customer No CLI0001056 2018/06/04

Your order N° 40033

Salesman Processed by Eric Kaehlert

**Credit Terme** Carrier Net 30 Days OUELLETTE VALLEYFIELD

Instruction T-Z **Delivery Route** Att: CHANTAL LAVOIE Tél.: 613-632-5200 Page

		Heat : 627D	3 ALU PL	DAI _11	LWL-TT	** CE)	** CERTI	** CEI SAW C	** CEI SAW C SCIE	** CERT. SAW CUT SCIE 2 PCS 6"	** CEI SAW C SCIE 2 PCS LINE# Heat:
Product	Flounce	6270	ALU PLATE 1 1/4 6061-T651 RANDOM	PAL-1146061-V	** CERTIFICATE **	1			SCIE 2 PCS 6" X 72" HT#	5" X 72" HT#	SCIE 1  2 PCS 6" X 72" HT#  LINE# 3  ** transit st-jerome 07-06 ** Heat: \$37116567
Product Description	peaci ibuoi		1-T651 RANI	7453				<b>L</b>	<b>F</b>	<b> </b>	107-06 **
•	-		MOC								
		иристи принири									
Weight	Ascidir	de de la company	107.76								
			6								
77	414		6.00			2.00					
U/M	0/19	And the state of t	PI2_\$CLB			N					
	CMD	man (man) year of man transfer of the company of th									-1
PCS NB	EXP			رو ۲	e:x	7	TO				
В	В/0	The second secon									
	N	And the state of t			N	-					
니프니	IS										
II Use	0	and the second s			S	: :					
Only	TUO	PRANTI mer i anumikanyi sayaningini ayananini merayanin merayanin sajaminangi majahin			3 2018		11	9-89			



Shipped to

, Ontario,

DART AEROSPACE LTD

1270 , ABERDEEN ST. HAWKESBURY, Ontario, K6A 1K7

ACIER OUELLETTE INC.
935, Boul. du Hâvre
935, Boul. du Hâvre
Salaberry de Valleyfield (Québec) J6S 5L1
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

**Delivery date** Date Customer N° CLI0001056 2018/06/04 2018/06/13

Carrier Salesman Processed by **OUELLETTE VALLEYFIELD** Eric Kaehlert

Your order No

40033

Att : CHANTAL LAVOIE Tél.: 613-632-5200 **Credit Terme** Net 30 Days

Delivery Route Page

Instruction F-M De	Delivery Route	5		Page	Ф		w		
		2			PCS NB	₩B		Internal Use Only	ıly
Product Description	Weight	ŲŊ	U/M	CMD	EXP	в/о	NI	I S C	TUO
4 FLAT ALU 1/4 X 4 6061-T6 *	23.52	20.00	PI_\$CLB						
FAL-144 2525					7		, C	DAS	
1 X 20' ** CERTIFICATE **					3		9	- Land	
INE# 4					8			9-89	2010
Heat : SXF172102			and common activities of summer recovered by a party of the street of th		provide Annual provides and the Annual Annua	the state of the s	Committy Secure on the particular lands (see particular lands) (see	JUN I 3	0107
5 FLAT ALU 5/8 X 3 6061-T6 *	26.44	12.00	PI_\$CLB						
FAL-583 <b>2633</b>									
1 X 12' ** CERTIFICATE **					7		ر د	JUN 1 3 2018	2018
LINE# 5					4		t		
AC16977-TH-2018-06-11 Heat: 001J180501D						1		φ	
Long Contraction									



Shipped to

, Ontario,

DART AEROSPACE LTD

1270 , ABERDEEN ST. HAWKESBURY, Ontario, K6A 1K7

ACIER OUELLETTE INC.
935, Boul. du Hâvre
935, Boul. du Hâvre
Salaberry de Valleyfield (Québec) J6S 5L1
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Date Customer N° CLI0001056 2018/06/04

Your order No 40033 Delivery date

2018/06/13

Processed by Eric Kaehlert

Salesman

Carrier **Credit Terme** Net 30 Days **OUELLETTE VALLEYFIELD** 

Att: CHANTAL LAVOIE Tél.: 613-632-5200 Page

Product Description Weight Qty	Weight	Weight Qty	Weight Qty U/M CMD I	Weight Qty U/M CMD	Weight Qty U/M CMD EXP B/O IN	Weight Qty U/M CMD EXP B/O IN	Weight Qty U/M CMD EXP B/O IN I
13.24 20.00		20.00	20.00 PI_\$CLB	20.00 PI_\$CLB	20.00 PI_\$CLB	20.00 PI_\$CLB	20.00 PI_\$CLB
	20.00	20.00	20.00	20.00 PI_\$CLB	20.00 PI_\$CLB	20.00 PL\$CLB	20.00 PI_\$CLB
Qt	<b>Qty</b> 24 20.00	<b>Qty U/M</b>	Qty U/M CMD 1	Qty         U/M         CMD         EXP           24         20.00         PI_\$CLB           \frac{1}{2}   \f	Qty U/M CMD EXP B/O IN  24 20.00 PI_\$CLB	Qty         U/M         CMD         EXP         B/O         IN         I           24         20.00         PI_\$CLB           \frac{1}{2}   \frac{1}{2}	Qty         U/M         CMD         EXP         B/O         IN         I           24         20.00         PI_\$CLB           \frac{1}{2}   \frac{1}{2}
<b>Qty</b> 20.00	0.00	<b>U/M</b> 0.00 PI_\$CLB	<b>U/M CMD</b> I	0.00 PL\$CLB	0.00 PL\$CLB   14   20   10   10   10   10   10   10   10	U/M CMD EXP B/O IN I  0.00 PI_\$CLB	U/M   CMD   EXP   B/O   IN   I
	U/M PI_\$CLB		CMB	CMD EXP	CMD EXP B/O IN  20	PCS NB Inte	PCS NB Inte



DART AEROSPACE LTD

1270 , ABERDEEN ST. HAWKESBURY, Ontario, K6A 1K7

ACIER OUELLETTE INC.
935, Boul. du Hâvre
935, Boul. du Hâvre
Salaberry de Valleyfield (Québec) J6S 5L1
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Shipped to

, Ontario,

Date Delivery date Customer N° 2018/06/04 CLI0001056 2018/06/13

Processed by Eric Kaehlert

Your order No

40033

Carrier Salesman **OUELLETTE VALLEYFIELD** 

Att: CHANTAL LAVOIE Tél.: 613-632-5200 **Credit Terme** Net 30 Days

Instruction F-M	Delivery Route	v	Page	ge		5			
				PCS NB	ΝB	ı	ntern	al Us	Internal Use Only
Product Description	weight	Qty O/M	CMD	EXP	в/о	IN	н	S	OUT
** transit st-jerome 07-06 ** Heat: TKCK			The state of the s			10 mm m m m m m m m m m m m m m m m m m		-	
8 ALU PLATE 4 1/2 6061-T651 RANDOM PAL-4126061-V <b>7485</b>	96.63	1.50 PI2_\$CLB		7					
1 PC 4-1/2" X 48" ** CERTIFICATE **				417		1		DAS	
LINE# 8				大				88-8	
AC16977-TH-2018 <u>-</u> 06-11 Heat: 001J180303C Heat: 001J180303K				40					JUN 1 3 2018
9 FLAT SS 3/8 X 3 SS304 (R)	45.96	12.00 PI_\$CLB							
FSS-383 <b>3578</b>				7				<u>_</u>	UN 1 3 2018
1 X 12' R/L ** CERTIFICATE **				92	ماس	7		11 9-89	¥ <del>`</del> s
								_	



Shipped to

, Ontario,

DART AEROSPACE LTD

1270 , ABERDEEN ST. HAWKESBURY, Ontario, K6A 1K7

ACIER OUELLETTE INC.
935, Boul. du Hâvre
935, Boul. du Hâvre
Salaberry de Valleyfield (Québec) J6S 5L1
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Date Customer N° CLI0001056 2018/06/04

Delivery date

2018/06/13

Your order No Processed by Eric Kaehlert 40033

Salesman

**Credit Terme** Carrier Net 30 Days OUELLETTE VALLEYFIELD

Π Σ Page 6

Att : CHANTAL LAVOIE Tél.: 613-632-5200

Instruction	Delivery Route	5	1 990		c	
				PCS NB		Internal Use Only
Product Description	Weight	Qty U/M	CMD	EXP B/O	IN	I S C OUT
Heat: 3971						
10 SQUARE SS 1 SS304 (R)	40.80	12.00 PI_\$CLB	В			
CSS-1 <b>2085</b>				+		SAC BILL E I NUL.
1 X 12' R/L ** CERTIFICATE **				0	12	
LINE# #10 Heat : 5617 <b>1</b> 822				9		Que de la companya de
HEAT TRE	428.82	6.00 PI2_\$CLB	В			
P4140-134H <b>8507</b>				<i>—</i>	^	DAS
1 X 12" X 72" ** CERTIFICATE **				2 '	5	1 2 201R 0-80
LINE# 12				2 7	(	JUN 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
	r)			4		

# **DELIVERY - CLIENT**

Copy co00093012

CHIEF LETTE	ACIER OUELLETTE INC.	Customer N°	CLI0001056
OULLILL INC	Salaberry de Valleyfield (Québec) J6S 5L1	Date	2018/06/04
	Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242	Delivery date	2018/06/13
		Your order No	40033
Billed to	Shipped to	Processed by	Eric Kaehlert
ערייי טרייסקי טרר בייס		Salesman	
1270 , ABERDEEN ST. HAWKESBURY, Ontario, K6A 1K7	, Ontario,	Carrier	OUELLETTE VALLEYFIELD
	Att : CHANTAL LAVOIE Tél.: 613-632-5200	Credit Terme	Net 30 Days
Instruction F-M	Delivery Route 5	Page	7

TUSTINCTION I-M	Delivery Koute	U				~		
Displaying	Work	2		PC	PCS NB		Internal Use Only	γlι
Froduct Description	Weight	Ath.	C C	CMD EXP	Р В/О	IN	I S C	OUT
AC-16978-FU-2018-06-11 Heat: 295845								
21/4	114.76	12.00	PI_\$CLB		discount and a second a second and a second and a second and a second and a second	And and the second seco	And department of the second section of the sect	per alle media delle delle di delle personale per delle dell
FCR-114214 9828				7	_	,		
1 X 12' R/L ** CERTIFICATE **				= = =	4_	17	DAS	
LINE# 11							9.49	
AC-16979-SAT-2018-06-06 Heat : 1-2027								
							NOC	N 13 2018
Conditions:	Total Weight (Lbs): 1 157.39	): 1 157.39	NIR	NIR: R-109516-6	6-6			

ξ	,
=	3
Ē	3.
-	
٤	
¢	•
Ξ	3
ū	2

All sold and delivered materials remain the property of "Acier Ouellette Inc" until payment is made in full, complete and cashed. All lost materials are at the buyer's expense. The warranty offered by "Acier Ouellette Inc." is the same as offered and honored by the manufacturer and his warranty is transferred by "Acier Ouellette Inc." to the client. The buyer hereby accepts to respect the following conditions: Net 30 days from billing date and the buyer accepts to pay administration charges of 2% per month (24% per annum) on all past due amounts over 30 days. Any default in respect with this contract will lead to payment by acceleration and permits to the seller, at his choice to claim for the balance due or the repossession of the goods sold. All claims must be made within five (5) days with this document enclosed. Any merchandise that has been damaged, cut or modified cannot be returned. All goods returned must be with our authorization and are subject to a 25% restocking charge.

Verified By : Delivered By : Time		Date	Customer's Signature			3	
	10th (\$cm)	_		Time	Delivered By :	Verified By :	Prepared By :



Dart Aerospace Ltd. 1270 Aberdeen St Hawkesbury, ON K6A 1K7 Canada

### PURCHASE ORDER PO040033

Tel (613) 632-5200

Supplier: ACI001-VC

Acier Ouellette Inc. 935 Boul. Du Havre

Valleyfield QC

J6S 5L1 Canada Phone: 800 667 4248 Fax: 450 377 5696 PO No:

PO040033

PO Date:

5/29/18 6/4/18

Due Date: Purchase Order Revision:

**Revision Date:** 

Ship-To Contact:

Lavoie, ChantalPhone:

clavoie@dartaero.com

Ship To:

1270 Aberdeen Street

Hawkesbury

ON

K6A 1K7 Canada Phone: 613-632-5200 Via:

Ground

Pymt Terms:

Net 30

Freight Terms:

**Special Comments:** 

Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price	
1			17-4 Round Bar .750 : 17-4 PH / S17400 / TYPE 630 SS ROUND BAR PER AMS 5643/ ASTM A564 GRAIN MUST BE ALONG LENGTH OF BAR MINIMUM YIELD TENSILE STRENGTH = 100 KSI MINIMUM ULTIMATE TENSILE STRENGTH = 150 KSI receive ft	Firmed			36		\$10.963888/ft	DAS 11 9-89	
2	M304R.500		304 SS roundbar .500 : MATERIAL: AISI 304/316 SS ROUND BAR AS PER ASTM A276 NOTE: AISI 303 NOT ACCEPTABLE receive ft	Firmed	6/1/18	120 ft	127,8	120 ft	\$2.3345/ft JUN 1 3 20	11	
3	M6061T6S1.250X6.000		6061T6 PLATE 1.250 X 6.000 : MATERIAL: 6061- T6/T62/T651 ALUMINUM SHEET AS PER QQ-A- 250/11 OR AMS-QQ-A- 250/11 OR AMS 4025 OR AMS 4027 OR ASTM B209 receive ft	Firmed	6/4/18	12 ft	12	12 ft	\$35.68167/ft UN 13,2018 11 9-89		

Line Item Note saw cut pricing included in pricing of mat'l

Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity		Unit Price (CAD)	Extende Price
4	M6061T6B0.250X04.000		M2024T3B0.250X4.500 : MATERIAL: 6061- T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ- A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ- A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	Firmed	6/4/18	20 ft		20 ft	\$4.28/ft DAS 11 JUN 13 2018	\$85.6
5	M6061T6B0.625X03.000		6061T6 Bar 0.625 X 3.000 : MATERIAL: 6061- T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ- A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ- A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft		6/4/18	12 ft	12	12 ft	\$11.87333/ft	\$142.4
6	M6061T6B0.750X00.750		6061-T6 Bar .750 X .750 : MATERIAL: 6061- T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ- A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ- A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	Firmed	6/4/18	20 ft	201	20 ft	\$2,4095/ft!  JUN 1 3 201  DAS 11 9-89	\$48.1
7	M6061T6S1.750X10.000		6061T6 SHEET 1.750 X 10.000 : MATERIAL: 6061- T6/T62/T651 ALUMINUM SHEET AS PER QQ-A- 250/11 OR AMS-QQ-A- 250/11 OR AMS 4025 OR AMS 4027 OR ASTM B209 receive ft	Firmed	6/4/18	6 ft	6 i		\$94.821666/ft  UN 1 3 2018  DAS 11 9-89	\$568.9
8	M6061T6B4.500X4.500		6061-T6 Aluminumbar 4.500" X 4.500" : MATERIAL: 6061- T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ- A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ- A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	Firmed	6/4/18	4 ft	41	4 ft	\$128.0225/ft  JUN 1 3 2  DAS 11 9-89	\$512.09 <b>018</b>
9	M304B0.375X03.000		M304 SS bar .375 x 3.00 : MATERIAL: AISI 304/316 SS BAR OR AISI 304/316 SS PLATE AS PER ASTM A276 OR ASTM A240 NOTE: AISI 303 NOT ACCEPTABLE receive ft	Firmed	6/4/18	12 ft	121	12 ft	\$13.02/ft  JUN 1 3 2  DAS 11 9-89	\$156.24 <b>?018</b>

Items											
Line Item	Part	Supplier Part No	Description	Status	Due Date		Received Quantity		Unit Price (CAD)	Extended Price	
10	M304B1.000X1.000		304 Bar 1.00 X 1.00 : MATERIAL: AISI 304/316 SS BAR OR AISI 304/316 SS PLATE AS PER ASTM A276 OR ASTM A240 NOTE: AISI 303 NOT ACCEPTABLE receive ft	1	6/4/18	12 ft	12		\$18.9025/ft UN 1 3 2018	\$226.83 DAS 11 9-89	
11	M1018B1.250X02.250		1010-1025 Steel Bar 1.250 X 2.250 : MATERIAL: AISI 1010- 1025 OR ASTM A36/A366/A569/A570 OR OR CSA G40-21 38W/44W/50W/60W/70W CSA G40-21 OR 38W/44W/50W/60W/70W receive ft	Firmed	6/4/18	12 ft	12		\$15.87/ft JN 1 3 2018	\$190.44 DA 1 9-8	
12	MT-4140-S- 1.750X12.000		AISI 4140 Steel Sheet/Plate	Firmed	6/11/18	6 ft	6 (0 ft	6 ft	\$225.095/ft JUN 1 3 20		

Order Notes

**Procurement Quality Clauses** 

A005 right of entry

A012 chemical and physical test report

A016 personnel qualification

A017 raw material identification (as applicable)

A026 certification of material conformance

A041 quality management system

A042 dart notification by supplier

A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit <a href="https://www.dartaerospace.com">www.dartaerospace.com</a> for further explanation.

Plex 5/29/18 11:09 AM dart.lavoie.chantal



### ACIER OUELLETTE INC.

935, Boul. du Hâvre

Salaberry de Valleyfield (Québec) J6S 5L1

Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248 Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

### Quotation

SOU0109163

Billed to

DART AEROSPACE LTD

1270 , ABERDEEN ST. HAWKESBURY, Ontario, K6A 1K7

Shipped to

, Ontario,

Att: CHANTAL LAVOIE Tél.: 613-632-5200

Customer N°

CLI0001056

Date

2018/05/25

Revision N°

0

Prices valid until

2018/06/01

Your Order No

Processed by

Eric Kaehlert

Salesman

**ERIC** 

Carrier

**OUELLE SDV** 

**Credit Terms** 

Net 30 Days

Page

1

Product N° and description	Weight	Qty	U/M	Qty	U/M	Price	Pcs Nb	Price	Amoun
ROUND SS 3/4 17-4PH NS RSS-34174 9268 3 X 12' R/L 4-5 DAYS	54.07	36.00	PI_\$CLB	36.00	PI	10.96			394.70
ROUND SS 1/2 304 (R) RSS-12 5730 10 X 12' R/L STOCK	80.04	120.00	PI_\$CLB	120.00	PI	2.33			280.14
ALU PLATE 1 1/4 6061-T651 RANDOM PAL-1146061-V <b>7453</b>	107.76	6.00	PI2_\$CLB	6.00	PI2	63.03			378.18
SAW CUT  SCIE 1 2 PCS 6" X 72" 3-4 DAYS		2.00	UN	2.00		25.00			50.00
FLAT ALU 1/4 X 4 6061-T6 * FAL-144	23.52	20.00	PI_\$CLB	20.00	PI	4.28			85.60
FLAT ALU 5/8 X 3 6061-T6 * FAL-583 <b>2633</b> 1 X 12' 2-3 DAYS	26.44	12.00	PI_\$CLB	12.00	PI	11.87			142,48
SQUARE ALU 3/4 6061-T6 * CAL-34 1787 1 X 20' STOCK	13.24	20.00	PI_\$CLB	20.00	PI	2.41			48.19
ALU PLATE 1 3/4 6061-T651 RANDOM PAL-1346061-V <b>7458</b>	125.35	5.00	PI2_\$CLB	5.00	PI2	106.79			533.93
SAW CUT  SCIE 1  1 x 10" x 72" 3-4 DAYS		1.00	UN	1.00		35.00			35.00
ALU PLATE 4 1/2 6061-T651 RANDOM PAL-4126061-V <b>7485</b> 1 PC 4-1/2" X 48" 2-3 DAYS	96.63	1.50	PI2_\$CLB	1.50	PI2	341.39			512.09

Date:

Next Page...



### ACIER OUELLETTE INC.

935, Boul. du Hâvre Salaberry de Vaileyfield (Québec) J6S 5L1

Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248 Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

### Quotation

SOU0109163

Billed to

DART AEROSPACE LTD

1270, ABERDEEN ST. HAWKESBURY, Ontario, K6A 1K7

Shipped to

, Ontario,

Att: CHANTAL LAVOIE Tél.: 613-632-5200

**Customer Nº** 

CLI0001056

Date

2018/05/25

Revision N°

0

Prices valid until

2018/06/01

Your Order No

Processed by

Eric Kaehlert

Salesman

ERIC

Carrier

**OUELLE SDV** 

**Credit Terms** 

Net 30 Days

Page

2

Product No and description	Weight	Qty	U/M	Qty	U/M	Price	Pcs Nb	Price	Amount
FLAT SS 3/8 X 3 SS304 (R) FSS-383 <b>3578</b> 1 X 12' R/L STOCK	45.96	12.00	PI_\$CLB	12.00	PI	13.02			156.24
SQUARE SS 1 SS304 (R) CSS-1 2085 1 X 12' R/L STOCK	40.80	12.00	PI_\$CLB	12.00	PI	18.90			226.83
RODALD HR 4 1/2 *  RHR-412 4884 1 X 4' 2-3 DAPS	216.32	4.00	PI_\$CLB	4.00	PI	89.75			358.98
PLATE 4140 HEAT TREAT 1 3/4 NS P4140-134H <b>8507</b> 1 X 12" X 72" 7-8 DAYS	428.82	6.00	PI2_\$CLB	6.00	IN_\$UN	225.09			1 350.57
FLAT CR 1 1/4 X 2 1/4 1018 NS FCR-114214 9828 1 X 12' R/L 2-3 DAYS	114.76	12.00	PI_\$CLB	12.00	PI	15.87			190.44
FUEL CHARGE FRAIS_ENERGETIQUE			\$						3.95

Total Weight (Lbs)

1 373.71

**Important** 

This offer is based on the availability, the price of material can change without notice in function of the evolution of the current market prices.

This offer is subject to credit approval.

Approuved and Accepted by :

Date:

Sub-total

4 747.32

TVH-13 · · 617.15

Total (\$CAD)

5 364.47

MATERIAL: M+	UN 1	132	-S - 1.7 018	50x12	SOON	PO / BATCH	1 NO.: <u>0 40</u>	1033/50
MATERIAL CERT REC'D: QUANTITY RECEIVED: QUANTITY INSPECTED: QUANTITY REJECTED:	6	5			THICK	NESS ORDE NESS RECE I SIZE ORDE	IVED:	150 130 1/4
DESCRIPTION	(Cr	CR leck (N)				COMMEN	TS	
SURFACE DAMAGE	Y	N						
CORRECT FINISH	D	N						
CORROSION	Y	(N)						
CORRECT GRAIN DIRECTION	Y	N	(					
CORRECT MATERIAL PER M-DRAWING	Y	N	ASTW	2 AX	29			
CORRECT THICKNESS	Y	N	70 4	700	7			
PHOTO REQUIRED	Y	N		- 4				
CORRECT REF # TO LINK CERT	C	N	year 7	F 29	584	1		
CORRECT MATERIAL IDENTFICATION	Q	N	<i>V</i> / · · ·					
CORRECT M# ON THE MATERIAL	Y	N						
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	N						
DOES THIS REQUIRE AN EXTRUSION REPORT	Υ	3						
		U						
CUT SAMPLE PIECI			ERIAL A			A HARDNE	SS CHECK.	
			IRC	HRE		DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					1		23113	VILDOTLIN
SIZE OF TEST SAMPLE						·		
HARDNESS / DUROMETER READI	VG							
		sters	located in	the Ouslin	Office			

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: 11	SIGNED OFF BY:
DATE: JUN 1 3 2018	DATE:

BY APPROVED FRACTIONS ± 1/8
ANGLES ± .5°
SURFACE
ROUGHNESS SCALE: NTS SHEET 10F1
DART AEROSPACE LTD AISI 4140 / 4142 STEEL SHEET OR PLATE M N 18.2.13 MT-4140-S DATE ECN # 18-544 N MT-4140-S-[T.TTT] x [W.WWW]
WHERE "T.TT" = THICKNESS IN INCHES
WHERE "W.WWW" = WIDTH IN INCHES (OPTIONAL FOR SPECIFYING CUT PLATE) malac DESCRIPTION NEW ISSUE EX. 0.063" THICK SHEET = MT-4140-S-0.063 EX. 3.5" WIDE BY 0.500" THICK PLATE = MT-4140-S-0.500X3.500 r SPECIFICATION CONTROL DRAWING PURCHASE MATERIAL: AISI 4140 / 4142 STEEL SHEET OR PLATE MINIMUM ROCKWELL C = 28 Rc REV. 4 ASTM A829, AMS 6395 S SPECIFICATION: PART NUMBER: 9 ۵ O ω ⋖

Q

MATERIAL: Mio	UN	<u>B1.</u> 137	290X02,250 PO/BATCH NO.: 040033/50
MATERIAL CERT REC'D:  QUANTITY RECEIVED:  QUANTITY INSPECTED:  QUANTITY REJECTED:	12	5	THICKNESS ORDERED: 1.250 THICKNESS RECEIVED: 1.250 SHEET SIZE ORDERED: W//A SHEET SIZE RECEIVED: W//A
DESCRIPTION	(CI	CR neck (N)	COMMENTS
SURFACE DAMAGE	Y	JN'	
CORRECT FINISH	8	N	
CORROSION	Y	(N)	
CORRECT GRAIN DIRECTION	N	N	
CORRECT MATERIAL PER M-DRAWING	(Y)	N	D67-1018
CORRECT THICKNESS	Y	N	797741010
PHOTO REQUIRED	Y	W	
CORRECT REF # TO LINK CERT	(Y)	N	112×451-2027
ORRECT MATERIAL IDENTFICATION	(Y)	N	196 7 7000 7
CORRECT M# ON THE MATERIAL	M	N	
DOES THIS MATERIAL REQUIRE	0		
<b>ENGINEERING SIGN OFF</b>	Υ	(N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	(N)	
CUT SAMPLE PIECE			FERIAL AND PREFORM A HARDNESS CHECK.
	1	_	DRD RESULTS BELOW

CUT SAMPLE PIECE OF	MATERIAL A	ND PREFOR	M A HARDNE	SS CHECK.	
F	RECORD RES	SULTS BELOV	V		
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: DAS	SIGNED OFF BY:
DATE: 9-89 JUN 1 3 2018	DATE:



CESIGN	DRAWN AY	DART AEROSP HAWKESBURY, ONTAR	
CHECKED	APPROVED	DRAWING NO MIDIO-B	REV A
DATE 01.12	06	AIST 1010-1025 BAR	».ALI NTS
A O	1,12.06	NEW ISSUE	

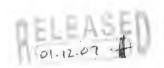
PURCHASE MATERIAL !

AIST 1010-1025 OR ASTM A36 /A366 /AS69 /AS70 CR CSA G40-21, 38W/44W/SOW/60W/70W

PART NUMBER:

MIDIO-BIT. TIT X WW. WWW WHERE TITT = THICKNESS (IN IMPLES) UN. WWW WIDTH (IN INCHES)

EG. 0.75" x 250" BAR = M1010-B0.750 x 02.500



MATERIAL: M3c	04/B/L UN 13 2	000 X 1:000 018		PO / BATCH	1 NO.: <u>040</u>	033/50
MATERIAL CERT REC'D:  QUANTITY RECEIVED:  QUANTITY INSPECTED:  QUANTITY REJECTED:	12! 12!		THICK SHEE			
DESCRIPTION	NCR (Check Y/N)			COMMEN	TS	
SURFACE DAMAGE	YN					
CORRECT FINISH	YN					
CORROSION	YN		72	***		
CORRECT GRAIN DIRECTION	YN	4				
CORRECT MATERIAL PER M-DRAWING	Y) N	Astun A	276			
CORRECT THICKNESS	Y) N	10 10 10				
PHOTO REQUIRED	YN					
CORRECT REF # TO LINK CERT	(Y) N	Host It So	21717	22	-	
CORRECT MATERIAL IDENTFICATION	(Y) N					
CORRECT M# ON THE MATERIAL	Y) N					
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y					
DOES THIS REQUIRE AN EXTRUSION REPORT	YN			<b>.</b>		
CUT SAMPLE PIECE	OF MA	TERIAL AND PRI	FORM	A HARDNE	SS CHECK	
		ORD RESULTS E				
		HRC HR		DUR A	DUR D	WEBSTER
TYPE OF MATERIAL			-			1
SIZE OF TEST SAMPLE						
HARDNESS / DUROMETER READI	VG					
	testers	located in the Quali	ty Office			

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)
INSPECTED BY:	DAS	SIGNED OFF BY:
DATE:	11 JUN 1 3 2019	DATE:

SPECIFICATION CONTROL DRAWING

۵

PURCHASE MATERIAL: AISI 304/316 SS BAR OR AISI 304/316 SS PLATE (NOTE: AIS) 303 NOT ACCEPTABLE)

SPECIFICATION: PART NUMBER:

ASTM A276 OR ASTM A240 M3045 T.TTT X WW.WWW THICK WIDTH WHERE "T.TTT" = THICKNESS IN INCHES AND "WW.WWW" = WIDTH IN INCHES

G. 0.5" x 3.0" BAR = M304B0.500X03.000

EG. 0.5" X 12.0" PLATE = M304B0.500X12.000

0 = L = 1 3 E

O	RELATI FROM	PLATE TO PUR ED SPECIFICAT 304/316 BAR" T	ADDED PLATE TO PURCHASE MATERIAL, ADDED PLATE RELATED SPECIFICATIONS, AND EG.; CHANGED TITLE FROM "304/316 BAR/PLATE"	MB	10.11.25
9	REFOR	REFORMAT DWG, ADD REF PAR 08-020A	REFORMAT DWG, ADD SPECS (ZN D8-1), REF PAR 08-0204	CP	09.07.15
«	NEW ISSUE	SUE		ЬН	05.06.10
REV.			DESCRIPTION	ВУ	DATE
DESIGN	Z	ES.	DART AFROSPACE ITD	CE L	2
DRAWN	7	-9	HAWKESBURY, ONTARIO, CANADA	CANA	· A
CHECKED	ŒD	18	DRAWING NO.		REV. C
MFG. APPR.	PPR.	6/2/1	M304B		SHEET 1 OF 1
APPROVED	VED	-	TITLE		SCALE
DE APPR.	R.	-	304/316 BAR/PLATE		NTS
DATE	10.1	10.11.25	COPYRIGHT © 2005 BY DART AEROSPACE LTD  Not together that the property of the	ROSPACE	LTD cocmon marries

۵

Ų

<

MATERIAL: M30 DATE: J		30.		23, 00C	)	PO / BATCH	H NO.: <u>640</u>	233/5076
MATERIAL CERT REC'D: QUANTITY RECEIVED: QUANTITY INSPECTED: QUANTITY REJECTED:	120	5,1		-	THICK SHEET			
DESCRIPTION	(Cr	CR neck (N)				COMMEN	TS	
SURFACE DAMAGE	Y	N						
CORRECT FINISH	(Y)	M						
CORROSION	Y	(N'						
CORRECT GRAIN DIRECTION	(Ý)	N	4					
CORRECT MATERIAL PER M-DRAWING	Y	N	Astur	1 42	76			
CORRECT THICKNESS	(A)	N						
PHOTO REQUIRED	Y	(N)						
CORRECT REF # TO LINK CERT	(Y)	N	Heat.	1139	7 J			
CORRECT MATERIAL IDENTFICATION		N	', /		1			
CORRECT M# ON THE MATERIAL	Y	N						
DOES THIS MATERIAL REQUIRE		0						
ENGINEERING SIGN OFF	Y	N						
DOES THIS REQUIRE AN		(0)						
EXTRUSION REPORT	Y							
CUT SAMPLE PIECE	E OF	MA	TERIAL A	ND PRE	FORM	A HARDNE	SS CHECK	
				SULTS BE				
			HRC	HRE		DUR A	DUR D	WEBSTER
TYPE OF MATERIAL								1
SIZE OF TEST SAMPLE					_			

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: 11	SIGNED OFF BY:
DATE: 9-89 JUN 1 3 2018	DATE:

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

HARDNESS / DUROMETER READING

1 2010 -11 - 30

REV. C NTS SHEET 1 OF 1 10.11.25 PH 05.06.10 09.07.15 DATE GHT @ 2005 BY DART AEROSPACE LTD DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWING NO. 8 MB 304/316 BAR/PLATE ADDED PLATE TO PURCHASE MATERIAL, ADDED PLATE RELATED SPECIFICATIONS, AND EG.: CHANGED TITLE FROM "304/316 BAR/PLATE" REFORMAT DWG. ADD SPECS (ZN D8-1), REF PAR 08-020A NEW ISSUE M304B 10.11.25 CHECKED
MFG. APPR.
APPROVED
DE APPR.
DATE REV. DESIGN DRAWN 8

SPECIFICATION CONTROL DRAWING

 $\infty$ 

U

PURCHASE MATERIAL: AISI 304/316 SS BAR OR AISI 304/316 SS PLATE (NOTE: AISI 303 NOT ACCEPTABLE)

ASTM A276 OR ASTM A240 SPECIFICATION: PART NUMBER:

M304BTTTT X WW.WWW

U

WHERE "T.TTT" = THICKNESS IN INCHES AND "WW.WWW" = WIDTH IN INCHES

EG. 0.5" x 3.0" BAR = M304B0.500X03.000
EG. 0.5" X 12.0" PLATE = M304B0.500X12.000

MATERIAL: MGO DATE:	61†6	84.50c 2018	2×4.500	PO / BATCH	INO.: 040	033/50
MATERIAL CERT REC'D:  QUANTITY RECEIVED:  QUANTITY INSPECTED:  QUANTITY REJECTED:	/es		THIC	CKNESS ORDE CKNESS RECEI ET SIZE ORDE ET SIZE RECEI	VED: 4.	.500 11A 11A
DESCRIPTION	NCR (Check Y/N)		1	COMMEN	тѕ	
SURFACE DAMAGE	YIN	<del>)                                    </del>				
CORRECT FINISH	YN					
CORROSION	YN					
CORRECT GRAIN DIRECTION	(Y) N	4 (				
CORRECT MATERIAL PER M-DRAWING	YN	Actu	n B 22	1		
CORRECT THICKNESS	(P) N	10100	1	1		
PHOTO REQUIRED	YN					
CORRECT REF # TO LINK CERT	(V) N	Heart	# COISI	80303C -	001318	0303K
CORRECT MATERIAL IDENTFICATION						
CORRECT M# ON THE MATERIAL	Y) N					
DOES THIS MATERIAL REQUIRE	0					
ENGINEERING SIGN OFF	YN					
DOES THIS REQUIRE AN EXTRUSION REPORT	VA					
EXTROSION REPORT						
CUT SAMPLE PIECE					SS CHECK.	
	REC	ORD RES	ULTS BELOV	V		
		HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL						
SIZE OF TEST SAMPLE						
HARDNESS / DUROMETER READII						

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: DAS	SIGNED OFF BY:
DATE: 9-89UN 1 3 2018	DATE:

SPECIFICATION CONTROL DRAWING

0

PURCHASE MATERIAL: 6061-76/7651/76510/76511/762 ALUMINUM BAR

SPECIFICATION:

QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116) OR QQ-A-200/8 QB-AMS-QGCA-200/8 (OR AMS 4160) OR ASTM B211 QR ASTM B221

WHERE "T.TTT" = THICKNESS IN INCHES "WW.WWW" = WIDTH IN INCHES M6061168 T.TTT | X | WW WWW WIDTH THICK

E.G. 1.0" x 12.0" BAR = M6061T6B1.000X12.000

O

RELEASED A 2009 -05- 03

œ	ASTM B	REMOVE QQ-A-250/11 OPT ASTM B211/B221 (ZN D7-1)	REMOVE QQ-4-250/11 OPTION, REFORMAT NOTES, ADD ASTM B211/B221 (ZN D7-1)	CP	09.07 13
4	NEW ISSUE	SUE		DS	01 06 08
REV			DESCRIPTION	ВУ	DATE
DESIGN		SO	DART AFPOCPACE ITD	12	2
DRAWN		00	HAWKESBURY, ONTARIO, CANADA	CANAC	) A
CHECKED	Q	AUS	DRAWING NO.		DEV.
MFG APPR	PR		M6061T6B		SHEET 1 OF 1
APPROVED	/ED	25	TITLE		SCALE
DE APPR	Q.	1	6061-T6 BAR		NTS
DATE	0.60	09.07.13	THIS DOCUMENT OF SHAPE AND CONFIDENCE AND CONFIDENC	ROSPACE	LTD CONDITION PATERS

Ω

U

PART NUMBER:

**B** 

MATERIAL CERT REC'D:	1/4	20			THI	CKNESS ORDE	RED. /	14
QUANTITY RECEIVED:	10	)		_		CKNESS RECE		
QUANTITY INSPECTED:	0	(		_				) () A
QUANTITY REJECTED:	0			_		ET SIZE ORDE		///
GOMMITT RESECUED.	<u> </u>				SHE	ET SIZE RECE	IVED:	<i>[</i>
DESCRIPTION	(Cr	CR neck				COMMEN	TS	
SURFACE DAMAGE	Y,	/N)  (N)	-					
CORRECT FINISH	(Y)	N	1	-				
CORROSION	Y	N						
CORRECT GRAIN DIRECTION	(Ý)	N		^				
CORRECT MATERIAL PER M-DRAWING	T	N	Acti	V 15:	DAC	,		
CORRECT THICKNESS	Y	N	100	105	<del>NO 7</del>			
PHOTO REQUIRED	Y	N		1 .				
CORRECT REF # TO LINK CERT	W	N	HONT	进业	CV			
ORRECT MATERIAL IDENTFICATION	W	N	1110	11				
CORRECT M# ON THE MATERIAL	Y	N						
DOES THIS MATERIAL REQUIRE		~						
ENGINEERING SIGN OFF	Y	M						
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	13						
			1	4412.55				
CUT SAMPLE PIEC				SULTS I			SS CHECK.	
		_	HRC	HF		DUR A	DUR D	WEBSTER
YPE OF MATERIAL								
ZE OF TEST SAMPLE								
ARDNESS / DUROMETER READI	NG							

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: DAS	SIGNED OFF BY:
DATE: 9-8-JUN 1 3 2018	DATE:

# SPECIFICATION CONTROL DRAWING

3

Ω

PURCHASE MATERIAL: 6061-T6/T62/T651 ALUMINUM SHEET OR PLATE **(** 

QQ-A-250/11 OR AMS-QQ-A-250/11 OR AMS 4025 OR 4027 CR ASTM b209-SPECIFICATION:

PART NUMBER:

**(** 

M6061T6S XXX X W.WWW THK WIDTH

WHERE ".XXX" = THICKNESS (IN INCHES) AND "W.WWW" = WIDTH (IN INCHES, OPTIONAL, FOR SPECIFYING CUT PLATE)

EG. 0.063" THICK SHEET = M6061T6S.063 EG. 3.5" WIDE BY 0.500" THICK PLATE = M6061T6S.500X3.500

PREFERRED SIZE:

**⊘** 

XXX BY 4FT BY 8FT FOR SHEET

17.12.13 09 07.13 01.06.08 DATE DS DART AEROSPACE LTD
ML HAWKESBURY, ONTARIO, CANADA
NO DRAWINS NO.
JFS M6061T6S SHEET 10
HS TITLE
SCA
CP 47 6061-T6 SHEET/PLATE SPEC N ¥, CP RF REFORMAT DWG, ADD 8209 SPEC (ZN D8-1), REF PAR 08-020A C ADD PLATE AND T651 SPEC NEW ISSUE DRAWN DESIGN **E** REV.

a

MFG. APPR. APPROVED CHECKED APPROVED

COPYRIGHT © 2001 BY DART AEROSPACE LTD net 0000mEnt of MEM.T AND COFFICIENT AND COFFICIENT AND SUPPLIES ON THE STATES OF THE SUPPLIES OF THE S 17.12.13

SCALE REV. C

SHEET 1 OF 1

DE APPR. DATE

00

Ω

Ç

œ

5/7( JN 13	8 20	0.750;	750	PO / BATCI	н NO.: <u>040</u>	033/SCC
20	5		TH SH	ICKNESS RECE EET SIZE ORDI	ERED: 1	
(Che	eck			COMMEN	TS	
-		-				
(7)	W.					
X	Ń,					
(Y)	N					
(Y)	N	ASTON	2 822	1		
Y	N	1	1000			
Y	(N)					
(Y)	N	HINT	1684	22		
(8)	N	1	7			
(Y)	N					
Y	N)					
Y	2					
					SS CHECK.	
			HRB		DURD	WEBSTER
				T DONA	DOND	VVLBSTER
						-
	NO 1 COF I	NCR (Check Y/N) Y N Y N Y N Y N Y N Y N Y N Y N Y N Y N	NCR (Check Y/N) Y N ASTON Y N Y N Y N Y N Y N Y N Y N Y N Y N Y	NCR (Check Y/N) Y N Y N Y N Y N Y N Y N Y N Y N Y N Y N	THICKNESS ORDER  THICKNESS RECE SHEET SIZE ORDER SHEET SIZE RECE  NCR (Check Y/N) Y N Y N Y N Y N Y N Y N Y N Y N Y N Y	THICKNESS ORDERED: 7  THICKNESS RECEIVED: 73  SHEET SIZE ORDERED: 1  SHEET SIZE RECEIVED: 1  NCR (Check Y/N)  Y N  Y N  Y N  Y N  Y N  Y N  Y N  Y

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: 11	SIGNED OFF BY:
DATE: 9-89UN 1 3 2018	DATE:

RELEASE Z009 -05- 03

REV. B 09.07.13 01.06.08 DATE DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA CP B REMOVE QQ-A-250/11 OPTION. REFORMAT NOTES, ADD ASTM B211/8221 (ZN D7-1) NEW ISSUE DESIGN

M6061T6B

COPYRIGHT © 2001 BY DART AEROSPACE LTD Nov cocomen of private to content and some of the subject of company of community or an expect community or an expect of company of community or an expect of company of community or an expect of company or com - 6061-T6 BAR DATE 09.07.13 CHECKED MFG. APPR. APPROVED

SPECIFICATION CONTROL DRAWING

œ

PURCHASE MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR

SPECIFICATION:

(B)

QQ-A-225/8 OR AMS-OQ-A-225/8 (OR AMS 4117/4128/4115/4116) OR QQ-A-200/8 OR AMS-QQ-A-280/8 (OR AMS 4160) OR ASTM B211 OR ASTM B221

PART NUMBER:

M6061T6B T.TTT X WW.WWW WIDTH THICK

WHERE "T.TTT" = THICKNESS IN INCHES "WW.WWW" = WIDTH IN INCHES

U

E.G. 1.0" X 12.0" BAR = M6061T6B1.000X12.000

MATERIAL CERT REC'D:	1.25	-	THICKNESS ORDERED: 0.625
QUANTITY RECEIVED:	12	1	THICKNESS RECEIVED: (7.625
QUANTITY INSPECTED:	12	J	SHEET SIZE ORDERED: N//
QUANTITY REJECTED:	a		SHEET SIZE RECEIVED: 1//4
	NO	CR	
DESCRIPTION	(Ch	eck	COMMENTS
	Y/	N)	
SURFACE DAMAGE	Y	N	
CORRECT FINISH	(Y)	N	
CORROSION	Y	Ń	
	(Y)	N	A
CORRECT GRAIN DIRECTION		_	
CORRECT GRAIN DIRECTION CORRECT MATERIAL PER M-DRAWING	Y	N	457m 10221
	(A)	N	A37m B221
ORRECT MATERIAL PER M-DRAWING	Y Y	N N	A37m B221
CORRECT MATERIAL PER M-DRAWING CORRECT THICKNESS	W W	Z Z Z Z	Hed It 001 51205010
CORRECT MATERIAL PER M-DRAWING CORRECT THICKNESS PHOTO REQUIRED	Š	Z Z Z Z	Hed #001 J180501D
CORRECT MATERIAL PER M-DRAWING CORRECT THICKNESS PHOTO REQUIRED CORRECT REF # TO LINK CERT	Š	2 2 2 2 2	Het #0015180501D
CORRECT MATERIAL PER M-DRAWING CORRECT THICKNESS PHOTO REQUIRED CORRECT REF # TO LINK CERT DRRECT MATERIAL IDENTFICATION	Š	- 1	Hest #0015180501D
CORRECT MATERIAL PER M-DRAWING CORRECT THICKNESS PHOTO REQUIRED CORRECT REF # TO LINK CERT DRRECT MATERIAL IDENTFICATION CORRECT M# ON THE MATERIAL	Š	N	Hest #0015180501D
CORRECT MATERIAL PER M-DRAWING CORRECT THICKNESS PHOTO REQUIRED CORRECT REF # TO LINK CERT DRRECT MATERIAL IDENTFICATION CORRECT M# ON THE MATERIAL DOES THIS MATERIAL REQUIRE	(See See See See See See See See See See	- 1	Hed #001 J180501D

CUT SAMPLE PIECE OF	MATERIAL A			SS CHECK.	
TYPE OF MATERIAL SIZE OF TEST SAMPLE	HRC	HRB	DUR A	DUR D	WEBSTER
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: DAS	SIGNED OFF BY:
DATE: 9-89 JUN 1 3 2018	DATE:

RELEASE 2009 -05- 03

REV. B SCALE NTS SHEET 1 OF 1 09.07.13 01 06 08 DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA COPYRIGHT © 2001 BY DART AEROSPACE LTD REMOVE QQ-4-250/11 OPTION. REFORMAT NOTES, ADD ASTM B211/B221 (ZN D7-1) M6061T6B
TITLE
6061-T6 BAR DRAWN
CHECKED
MFG APPR.
APPROVED
DE APPR.
DOTE
DOTE
DOTE NEW ISSUE DESIGN

PURCHASE MATERIAL: 6061-76/7651/76510/76511/762 ALUMINUM BAR

SPECIFICATION CONTROL DRAWING

0

SPECIFICATION:

0

(B)

QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116) OR QQ-A-200/8 OR AMS 4000, 200/8 (OR AMS 4160) OR ASTM B211 OR ASTM B221

PART NUMBER:

M6061T6B T.TTT X WW.WWW WIDTH THICK WHERE "T.TTT" = THICKNESS IN INCHES "WW.WWW" = WIDTH IN INCHES

()

E.G. 1.0" X 12.0" BAR = M6051T6B1.000X12.000

MATERIAL: M60 DATE: JUN	13 20	18	-			,			
MATERIAL CERT REC'D:	1/19	THI	CKNESS ORDE	RED:	250				
QUANTITY RECEIVED:	201		THICKNESS RECEIVED: 0,250						
QUANTITY INSPECTED:									
QUANTITY REJECTED:	0		_	SHEET SIZE ORDERED: WA					
GUANTITI REJECTED.	<u> </u>		. SHE	ET SIZE RECEI	VED: ////	7			
	NCR	T	•						
DESCRIPTION	(Check Y/N)	<		COMMEN'	TS				
SURFACE DAMAGE	Y		1						
CORRECT FINISH	(Y) N								
CORROSION	Y								
CORRECT GRAIN DIRECTION	M N	0.4							
CORRECT MATERIAL PER M-DRAWING	(Y) N	ASTO	n B221						
CORRECT THICKNESS	(Y) N								
PHOTO REQUIRED	X			0					
CORRECT REF # TO LINK CERT	N	Heat	# S'X+	172 102					
ORRECT MATERIAL IDENTFICATION	Y) N	1,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		-					
CORRECT M# ON THE MATERIAL	N								
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	YN								
DOES THIS REQUIRE AN EXTRUSION REPORT	YN		•						
CUT SAMPLE PIECE			.ND PREFOR SULTS BELOV		SS CHECK.				
VDE OF MATERIAL		HRC	HRB	DUR A	DUR D	WEBSTER			
YPE OF MATERIAL									
IZE OF TEST SAMPLE									
IARDNESS / DUROMETER READI	1G								

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: DAS	SIGNED OFF BY:
DATE: 9-8-UN 1 3 2018	DATE:

RELEASED Z009 -05-03

REV. B SHEET 1 OF 1 09 07 13 01 06.08 DATE COPYRIGHT © 2001 BY DART AEROSPACE LTD
This poolseem center also got replication to some its consist to get the consistent for DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA
DRAWMING NO.
M6061T6B
SHEE 92 SO B REMOVE 0Q-A-250/11 OPTION. REFORMAT NOTES, ADD ASTM 8211/8221 (ZN D7-1) - 6061-T6 BAR CHECKED A JOHN MFG APPR. MFG APPR. DE APPR. DATE 09.07.13 A NEW ISSUE DESIGN REV

PURCHASE MATERIAL: 6061-16/T651/T6510/T6511/T62 ALUMINUM BAR

SPECIFICATION CONTROL DRAWING

Ω

QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116) OR QQ-A-200/8 OR AMS-QQ-A-209/8 (OR AMS 4160) OR ASTM B211 OR ASTM B22T SPECIFICATION:

WHERE "T.TIT" = THICKNESS IN INCHES "WW.WWW" = WIDTH IN INCHES M6061T6B T.TTT X WW.WWW WIDTH THICK

PART NUMBER:

**⊗** 

0

E.G. 1.0" X 12.0" BAR = M6061T6B1.000X12.000

O

MATERIAL: MOSE	UN 1	3 21	1.250x6.000 PO/BATCH NO: 040033/5080 5080
MATERIAL CERT REC'D:  QUANTITY RECEIVED:  QUANTITY INSPECTED:  QUANTITY REJECTED:	10	2	THICKNESS ORDERED: 1.250 THICKNESS RECEIVED: 1.250 SHEET SIZE ORDERED: N/A SHEET SIZE RECEIVED: N/A
DESCRIPTION	NCF (Chec	ck	COMMENTS
SURFACE DAMAGE	Y (	N	
CORRECT FINISH	(Y)	N	
CORROSION	Y	N	
CORRECT GRAIN DIRECTION	Y	N	
CORRECT MATERIAL PER M-DRAWING	(Y)	N	Astm B209
CORRECT THICKNESS	(Y)	N	77.101.10/10/
PHOTO REQUIRED	Y	N	
CORRECT REF # TO LINK CERT	(2)	N	HONFIT 832116562
ORRECT MATERIAL IDENTFICATION	CZ	N	1907
CORRECT M# ON THE MATERIAL	Y	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (	N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	(2)	
CUT SAMPLE PIECE			ERIAL AND PREFORM A HARDNESS CHECK.  ORD RESULTS BELOW
SURFACE DAMAGE  CORRECT FINISH  CORROSION  CORRECT GRAIN DIRECTION  CORRECT MATERIAL PER M-DRAWING  CORRECT THICKNESS  PHOTO REQUIRED  CORRECT REF # TO LINK CERT  ORRECT MATERIAL IDENTFICATION  CORRECT M# ON THE MATERIAL  DOES THIS MATERIAL REQUIRE  ENGINEERING SIGN OFF  DOES THIS REQUIRE AN  EXTRUSION REPORT	(Checky/N) Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y	N N N N N N N N N N N N N N N N N N N	Asim B209  Herft 5.37116567  ERIAL AND PREFORM A HARDNESS CHECK.

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDN RECORD RESULTS BELOW	ESS CHECK.	
MATERIAL HRB DUR A EST SAMPLE	DUR D	WEBSTER
MATERIAL	DOR	

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: 11	SIGNED OFF BY:
DATE: 9-89UN 1 3 2018	DATE:

# SPECIFICATION CONTROL DRAWING

O

O

PURCHASE MATERIAL: 6061-T6/T62/T651 ALUMINUM SHEET OR PLATE SPECIFICATION:

0

M6061T6S XXX X W.WWW QQ-A-250/11 OR AMS-QQ-A-250/11 OR AMS 4025 OR 4027 OR ASTM-8209

0

PART NUMBER:

WHERE ".XXX" = THICKNESS (IN INCHES)
AND "W.WWW" = WIDTH (IN INCHES, OPTIONAL, FOR SPECIFYING CUT PLATE)

XXX BY 4FT BY 8FT FOR SHEET EG. 0.063" THICK SHEET = M6061T6S.063 EG. 3.5" WIDE BY 0.500" THICK PLATE = M6061T6S.500X3.500

PREFERRED SIZE:

THE MANUEL 2018 MAR 13 0

DESIGN
DESIGN
DESIGN
CHECKED
OMFG.APPR.
APPROVED
DE APPR.
DATE REFORMAT DWG, ADD 8209 SPEC (ZN D8-1). NEW ISSUE ADD PLATE AND T651 SPEC 17.12.13 DS DART AEROSPACE LTD

ML HAWKESBURY, ONTARIO, CANADA

NO DRAWING NO.

JES M6061T6S SHEET 1 OF 1

HS TITLE

CP 47 6061-T6 SHEET/PLATE SPEC NTS DESCRIPTION CP ΥВ ×. 곢 09.07.13 01.06.08 17,12.13 DATE

 $\cap$ 

MATERIAL: DATE:	M304R.500 JUN 1 3 2018	PO / BATCH NO.: 040033/5080895
MATERIAL CERT REC'D: QUANTITY RECEIVED: QUANTITY INSPECTED: QUANTITY REJECTED:	7es 128' 128'	THICKNESS ORDERED: 0500 THICKNESS RECEIVED: 0500 SHEET SIZE ORDERED: WAR

DESCRIPTION	(Cr	CR leck (N)	COMMENTS
SURFACE DAMAGE	Y	N	
CORRECT FINISH	Y	N	
CORROSION	Y	N	
CORRECT GRAIN DIRECTION	(4)	N	
CORRECT MATERIAL PER M-DRAWING	(V)	N	A51m A276
CORRECT THICKNESS	Y	N	
PHOTO REQUIRED	Υ	N	
CORRECT REF # TO LINK CERT	(Y)	N	Heat # 1712154
CORRECT MATERIAL IDENTFICATION	(Y)	N	
CORRECT M# ON THE MATERIAL	(Y)	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Υ	(N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Υ	3	

CUT SAMPLE PIECE OF	MATERIAL A			SS CHECK.	
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D	WEBSTER
SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: DAS	SIGNED OFF BY:
DATE: 9-89 JUN 1 3 2018	DATE:

REV. B 08 03.03 DATE SHEET 1 OF 1 09.07.15 DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA
DRAWING NO.
M304R HT @ 2008 BY DART AEROSPACE LTD AJS o o - 304/316 ROUND BAR REFORMAT DWG, ADD SPECS (ZN D6-1), REF PAR 08-020A DESIGN
DRAWN
CHECKED
MFG. APPR.
APPROVED
DE APPR.
DE APPR.
DATE
09.07.15 A NEW ISSUE REV

PURCHASE MATERIAL: AISI 304/316 SS ROUND BAR (NOTE: AISI 303 NOT ACCEPTABLE)
SPECIFICATION:
ASTM A276

PART NUMBER:

M304RD DDD DIA.

WHERE "D.DDD" = DIAMETER IN INCHES

EG. 0.75" ROUND BAR = M304R0.750

SPECIFICATION CONTROL DRAWING

(B)

U

۵

00

### MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M17 DATE: J	.4-RO.750 UN 13 2018	PO / BATCH NO.: 040033/So 8089
MATERIAL CERT REC'D:  QUANTITY RECEIVED:  QUANTITY INSPECTED:  QUANTITY REJECTED:	36 36 36	THICKNESS ORDERED: 0.750 THICKNESS RECEIVED: 0.750 SHEET SIZE ORDERED: N/A SHEET SIZE RECEIVED: N/A
DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	YN	
CORRECT FINISH	(Y) N	
CORROSION	Y (N')	
CORRECT GRAIN DIRECTION	N	

CUT SAMPLE PIECE OF	MATERIAL A	ND PREFOR	M A HARDNE	SS CHECK.	
F	RECORD RES	SULTS BELOV	V		
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: DAS	SIGNED OFF BY:
DATE: JUN 1 3 2011)	DATE:

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

N (N)

প

N

N

Υ

CORRECT MATERIAL PER M-DRAWING
CORRECT THICKNESS

PHOTO REQUIRED

CORRECT REF # TO LINK CERT

CORRECT MATERIAL IDENTFICATION

CORRECT M# ON THE MATERIAL

DOES THIS MATERIAL REQUIRE

**ENGINEERING SIGN OFF** 

DOES THIS REQUIRE AN EXTRUSION REPORT SPECIFICATION CONTROL DRAWING

က

PURCHASE MATERIAL: 17-4 PH / S17400 / TYPE 630 SS ROUND BAR RASIN MUST BE ALLONG LENGTH OF BAR GRAIN MUST BE ALLONG THE PER TABLE MINIMUM YIELD STRENGTH PER TABLE MINIMUM ULTIMATE STRENGTH PER TABLE **(** 

SPECIFICATION:

AMS 5643 DR ASTM A564

M17-4- HHHHH- R XXXXX WHERE: HHHHH SPECIFIES THE MATERIAL CONDITION (PER TABLE BELOW) XXXX = DIAMETER (IN INCHES)

MATERIAL CONDITION TABLE: **(** 

CODE	CONDITION	MIN YIELD TENSILE STRENGTH (KSI)	MIN ULTIMATE TENSILE STRENGTH (KSI)
(OMITTED)	(CONDITION A NOT ACCEPTABLE)	100	150
H900	H900	170	190
H925	H925	155	170
H1025	H1025	145	155
H1075	H1075	125	145
H1100	H1100	115	140
H1150	H1150	105	135
CONDA	(SOLUTION TREATED)		

MATERIAL IN H900 AND H925 CONDITION NOT RECOMMENDED FOR TENSION OR SHEAR APPLICATIONS IN COLD WEATHER CONDITIONS NOTES:

MATERIAL IN H900 AND H925 CONDITION NOT RECOMMENDED FOR APPLICATIONS WHERE STRESS CORROSION CRACKING IS POSSIBLE

CONDITION A NOT TO BE USED IN DESIGN FOR FINAL PRODUCT AND SHOULD ALWAYS BE HEAT TREATED

PART NUMBER M174-R4 000 M174-H900-R2 500 M174-H1025-R3 250 M174-CONDA-R0.750 PART 4.000° DIAMETER BAR MIN UTS = 150 KSI, MIN YTS = 100 KSI 2.500° DIAMETER BAR H1026 CONDITION 3.250° DIAMETER BAR H1026 CONDITION 0.750° DIAMETER BAR A CONDITION

REV. C SHEET 1 OF 1 NTS 10.05.20 05.03.16 DATE DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA
DRAWING NO.
F
M17-4-R COPYRIGHT © 2005 BY DART AEROSPACE LTD OSSIONED ON THE EMPESS CONCY. NOT YOUR UNIT WHO IS SOME TO NOT BE THE THE SOME THE THE OSSIONED ON THE SOME THE THE SOME THE S S UP 17-4 SS ROUND BAR ADDED MATERIAL CONDITION (CIRT7-107)
REFORMAT DWG, ST7400TYPE 630 ADDED TO
PURCHASC MATERIAL (ZN D6-1), ADD A564 SPEC (C6-1),
REF PAR 050-520A
REWISSUE DESCRIPTION TITLE W 8 8 8 E 9 17.09.14 APPROVED MFG. APPR CHECKED DE APPR. DRAWN DESIGN DATE 8 **APPROVED** 

17.09.14

9

OFFEASE J J 2017 -10- 31

ELNI7-728

EXAMPLES: 0

00

O

 $\bigcirc$ 

O

PART NUMBER:

00

2

### **ABNAHMEPRUEFZEUGNIS**

CERTIFICAT DE CONTROLE

CERTIFICATE OF TESTS CERT SERIAL# 001083003

Carpenter Technology Corporation 101 West Bern Street, Reading, Pa. 19601 Tel: (610) 208-2000 (800) 338-4592

03/06/18 CUSTOMER / BESTELLER / CLIENT

COPPER & BRASS SALES 22355 W ELEVEN MILE SOUTHFIELD ,MI 4 ,MI 48034

THE RECORDING OF FALSE. FICTICIOUS OF FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMEN MAY BE PUNISHED AS A FELONY UNDER FEDERAL STATUTES INCLUDING FEDERAL LAW. TITLE 18 CHAPPER 24

THE VALUES AND OTHER TECHNICAL DATA REPRESENT THE RESULTS OF ANALYSES AND TESTS MADE ON SAMPLES COLLECTED FROM THE TOTAL LOT. ORIGINAL DATA RECORDS CAN BE TRACED BY REFERENCE TO THE CARPENTER ORDER NUMBER.

MATERIAL IS MANUFACTURED FREE FROM MERCURY, RADIUM, ALPHA AND GAMMA SOURCE CONTAMINATION.

• THIS DOCUMENT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN CONSENT

SELLER / VERKÄUFER / VENDEURPAGE

CARPENTER TECHNOLOGY CORP

101 W BERN STREET READING , PA 19601

CUSTOMER ORDER NO. / BESTELL - NR. / Nº DE COMMANDE CARPENTER NO. /WERKS-NR. /Nº DE REFERENCE INTERNE DATE/DATUM/DATE WEIGHT/GEWICHT/POIDS 5400390299-R02 CHI027503 L11781 03/06/18 2008.000

HEAT NUMBER / SCHMELZE-NR. / Nº DE COULEE :

752410

UNS NUMBER S17400

PRODUCT DESCRIPTION: TYPE 17-4 SOLUTION ANNEALED COLD FINISH

TALLEY 174-T1A CAP OF H900 (01/11/99)
AMS 2303 (REAFFIRMED) REV F (06/716)
AMS 2315 (PROD QUALIFICATION) REV G (0
AMS 5643 CAP OF H900 REV U (08//16)
ASTM-A484-16
ASTM-A564-13 CAP OF H900
ASME-SA564 CAP OF H900 2015 EDITION
ASTM-F899-12B
AS 6279 REV A (05//16)
GE S-400 (06/03/16)
GE S-400 (06/03/16)
GE S-SPEC-1 (05/23/17)
PRATT MCL F-17 SUPP A REV B (01/10/17)
PRATT MCL F-17 REV C (07/01/15) SPECIFICATION:

(02/01/13)

SIZE 0.750000 IN. (19.05 MM) RD BAR

HEAT CHEMISTRY (WT%):

(TEST METHOD IS SHOWN IN PARENTHESIS)

0.03 (COM) MN (XRF) SI(XRF) P (XRF) S (COM) CR (XRF) 0.85 0.021

NI (XRF) MO (XRF) CU(XRF) N (FUS) LT .02 TA(XRF) CB(XRF) 3.69

CB+TA 0.27

TIME

IN

GEAG SUPPLIER CODE - 21100/CARPENTER
MATERIAL PRODUCED UNDER LCS IN ACCORDANCE WITH P&WA F-17.
THIS HEAT MELTED BY THE ELECTRIC ARC/AOD PROCESSES
CARPENTER TECHNOLOGY HAS COMPLIED WITH ALL PRODUCER REQUIREMENTS OF AS 6279
THIS MATERIAL WAS MANUFACTURED IN ACCORDANCE WITH CARPENTER SPECIALTY ALLOYS
OPERATIONS QUALITY PROGRAM MANUAL REVISION 35, DATED 11/07/16.
MILL HEAT TREATMENT:
TYPE
SOL AND

TYPE TEMP

SOL ANL 1900F 1038C) (BATCH FURNACE) 30.00 MINUTES

OUENCH WATER

DISCS MACROETCHED AND APPROVED

HARDNESS AS SHIPPED, HRC MAGNETIC PARTICLE: FRE FREQUENCY = 0 / SEVERITY = 0

(MIDRADIUS)

### CONTINUED ON NEXT PAGE

This certification is made to the customer printed on this form. Carpenter neither makes, nor assumes responsibility for, any representation or certification to other parties.
Die vorliegende Zertifizierung ist nur für den in diesem Formular genannten Kunden gültig. Carpenter übernimmt gegenüber Dritten keinerlei Haftung für die ausgewiesenen Daten oder Zertifizierungen.
Ce certificat est uniquement valable pour fe client dent le nom est inprimé sur ce formulaire. Carpenter n'assume pas de responsabilité pour une certification vis-à-vis d'une tierce personne.

ARPENT

Carpenter Technology Corporation 101 West Bern Street, Reading, Pa. 19601 Tel: (610) 208-2000 (800) 338-4592

03/06/18

CUSTOMER / BESTELLER / CLIENT

THE RECORDING OF FALSE. FICTICIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHED AS A FELONY UNDER FEDERAL STATUTES INCLUDING FEDERAL LAW. TITLE 18:

THE VALUES AND OTHER TECHNICAL DATA REPRESENT THE RESULTS OF ANALYSES AND TESTS MADE ON SAMPLES COLLECTED FROM THE TOTAL LOT. ORIGINAL DATA RECORDS CAN BE TRACED BY REFERENCE TO THE CARPENTER ORDER NUMBER.

MATERIAL IS MANUFACTURED FREE FROM MERCURY, RADIUM. ALPHA AND GAMMA SOURCE CONTAMINATION.

THIS DOCUMENT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN CONSENT

SELLER / VERKÄUFER / VENDEURPAGE

COPPER & BRASS SALES 22355 W ELEVEN MILE SOUTHFIELD ,MI 4 ,MI 48034

CARPENTER TECHNOLOGY CORP

101 W BERN STREET READING ,PA 19601

(MIDRADIUS)

CUSTOMER ORDER NO./BESTELL-NR./Nº DE COMMANDE CARPENTER NO./WERKS-NR./Nº DE REFERENCE INTERNE DATE/DATUM/DATE WEIGHT/GEWICHT/POIDS 5400390299-R02 CHI027503 L11781 03/06/18 2008,000 HEAT NUMBER / SCHMELZE-NR. / N° DE COULEE : 752410 UNS NUMBER S17400 MICROSTRUCTURE - FERRITE LESS THAN 5.00% CAPABILITY 900 F( 482 C), 01 HR AIR COOL HARDNESS

42

(T) RANSVERSE (L) ONGITUDINAL YIELD STRENGTH, (0.20 %) KSI (MPA) TENSILE STRENGTH, KSI (MPA) ELONGATION IN 2.00", % REDUCTION OF AREA, 202.2( 1394) 1417) 14.8 53.5

HRC

MELTED IN USA

MELT SOURCE: CARPENTER MATERIAL TESTED AT A QUALIFYING CARPENTER LAB

MATERIAL HAS BEEN MELTED AND MANUFACTURED IN THE USA WHICH IS A QUALIFYING COUNTRY TO DFARS REQUIREMENTS 252.225-7014 WITH ALTERNATE 1 FOR QUALIFYING 252.225-7009.

CARPENTER'S QUALITY MANAGEMENT SYSTEM WAS REGISTERED AS OF NOVEMBER 24, 2013 TO THE REQUIREMENTS OF ISO 9001:2008 APPROVAL CERTIFICATE 13-1996R BY PERFORMANCE REVIEW INSTITUTE. THIS CERTIFICATE OF TEST IS TYPE 3.1 PREPARED IN ACCORDANCE WITH EN 10204 (DIN 50049). WE HEREBY CERTIFY THAT THE ABOVE TEST DATA ARE IN ACCORDANCE WITH THE PURCHASE ORDER AND SPECIFICATION REQUIREMENTS, AS DOCUMENTED IN THIS CERTIFICATE OF TESTS.

TEST METHODS ARE PER THE ASTM STANDARDS ON FILE AND IN EFFECT AT TIME OF ORDER ACCEPTANCE, STANDARD PRACTICES, OR AS AGREED UPON BETWEEN CARPENTER & CUSTOMER.

SHARON S. BRUNSON QUALITY ASSURANCE REP. CARPENTER TECHNOLOGY CORPORATION SSRD01402 Date These Tests Are For Malerial Shipped On CBB01697 Your Order\_ Sales, Inc. From Copper And Brass INV/WO QC WGT

This certification is made to the customer printed on this form. Carpetter neither makes, nor assumes responsibility for, any representation or certification to other parties.

Die vorliegende Zertifizierung ist nur für den in diesem Formular genannten Kunden gültig. Carpenter übernimmt gegenüber Dritten keinerlei Haftung für die ausgewiesenen Daten oder Zertifizierungen.

Ce certificat est uniquement valable pour le client dont le nom est imprimé sur ce formulaire. Carpenter n'assume pas de responsabilité pour une certification vis-à-vis d'une tierce personne.



Tel.: 91-22-66290600, Fax.: 91-22-66290633/34

Website : www.chandansteel.net

Bafail ; csl@cliandansteel.net

(GOVT. OF INDIA RECOGNISED EXPORT

15O 9001 : 2008 CERTIFICATE No. 01 100 011022

WORKS:PLOT NO. 31 TO 36 A5A6A8, & 49/2,142

(EXP. AREA)GIDC, UMBERERGAON & SURVEY NO. 102

DEHARI, TALUKA: UMBERGAON, DIST: VALSAD, GUJARAT 396171

GSTIN - 24AAACC4713812G

L/c. No.:

L/c. Date:

F824 QC 09A / 02 / 10.12.2012

### MILL TEST /INSPECTION CERTIFICATE 3,1

			1.00		ACCORDI	NG TO E	V 10204 : 20	05			
Consignee							Test Certi Date of Is P. O. No. SC. No. & Invoice N	Date o. & Date	: EXP/01152 - : 03.01.2018 : MN5942 : 17-18/00447, : EXP/01152/20	Dt.08.11.201 017-18 Dt.03.	7 01.2013
			OUCT DES		-	*		LENGT		N	et Wt.
	1	STAINLE	SS STEEL	ROUND B	ARS			lered	Actual		4680 Lbs.
		· · · · · · · · · · · · · · · · · · ·					12	- 141	12' - 14'		2000 1200.
Heat I	No.		ade ISI		ize inches	Tole	erance		Proces	s Route	
17121	1712154		04L )/	(1/2") af			n9	EI	ectric Melting. Continuo	A.O.D. Refi	
				CHI	EMICAL C	OMPOSIT	ION (Weig	sht %)	7, 7, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,		· · · · · · · · · · · · · · · · · · ·
	С	Si	Mn	P	8	Cr	Мо	Ni	Cu	Ti	N
Min.	-	-	-	*	-	18,00		8,00	-	•	A1
Max.	0.030	1.00	2.00	0.045	0.030	20,00	-	12.00	+	-	
Results	0.028	0.33	1.56	0.038	0.008	18.02	-	8.02			-
					MECHAN	WICAL PR	OPERTIES			-1 <del>1 :</del>	
Specified Value	rified Yield Strength Tensile Strength			Elongation		Reduction of Area,		dness			
Min.		310		6	20	3	Q		40		-
Max.		-			-		<b>&gt;</b>		*		-
Results		534		7	37	3	8		65	22	9-232

### Remarks:

1. Cold drawn & Centreless Ground.

2. Solution annealed at 1050 °C.

- 3. PMI test done 100% & found Satisfactory.
- 4. Material is free from radio-active contamination.
- 5. Inter-Granular Corrosion Test as per ASTM A262 15 (Pr.E) satisfactory.
- 6. The material conforms to ASTM A276/15/A182-15/A479-15 & ASME SA479-13 Specifications.
- 7. Location of sample Centre, Direction Longitudinal, Test Temp Room Temp., Shape of Test Piece Round.
- 8. Marking details Company Logo, Size, Grade & Heat No.
- 9. The material is manufactured /melt in Chandan Steel Mill and is of Indian Origin.
- 10. No welding/weld repairs was performed on this material.

BUNDLE NO.;

32, 33, 35 & 36

B.S. RAUTELA MANAGER - QUALITY ASSURANCE

It is hereby certified that the above results are true and correct in everydetails and are meeting the requirements of specification & purchase order.



North American Stainless Canada Inc. 740 Imperial Road, North Guelph, ON N1K1Z3

# METALLURGICAL TEST REPORT

6870 Highway 42 East Ghent, KY 41045-9615 (502) 347-6000

Certificate: 373018 17 Mail 70:

Customer: 007080 003

sor did

Date: 1/19/2018 Page:

4

Steel: 304/304L

Finish: CD

Corrosion: ASTM A262/15 Prac A/E OR

## PRODUCT DESCRIPTION:

Your Order: M81116

Round Bar, Annealed, Cold Draw UMS 30400/30403 EM 10204 3.1, ASTM A484/16 ASTM A776/17, ASTM A479/17, ASTM A182/16a CHEM CHEZ, ASTM SA479/13, ASHM SA182/13 CHEM CHEZ, ASHM SA479/13, ASHM SA182/13 CHEM CHEM CHEZ,

AMS 5639J, AMS 5647K, AMS QQS-763D, QQS-763F, ASTM 7899/12b SOLUTION ANNEAL TENT 1900F NIN, ASTM A320/17a CL 1 GR B8 ASTM A193/10A-ASNE SA193/10 CL 1 GR B8

### REMARKS:

Heat Treat Code: 44,465

WAS Order: IN 0257931 05

COMPLIES W/NEQUINEMENTS OF DFAR 252.225-7009 HU DIRECTIVE 2011/65/HU.WOMB. MAY+AOD+CC. NO WHILD REPAIR. MELYHD AND MEG IN USA FIGHE FROM MENCURY AND LOW MELYTING ALLOY CONTAMINATION

FECONGE TO	SETO & DISMET	9220	Weight	Length	Maxk	Places Commodity Code
J1646 7						
BU1060 7	, 1000		572	144.00	19	<b>j-4</b>

Lab Accreditation Bureau, ISO/IEC 17025, Certificate# 12323

		<b>A</b>		
		6270	MAS Heat	CHEMICAL ANALYSIS
		80	<b>C3</b>	SATVE
-0285	10) JP	. 013	CM C % CO %	H SS
.0285 .23	% 18	.11		CM(Country of Melt) ES(Spain) US(United Statue) ZA(South Africa) JP(Japan)
		18.28	COR Se	N) ES(Spain
		-61	CG %	) US(Unite
		1.38	% 101C	d Status) ZA(S
		.311	* 01	South Africa)
		.075	16 16	JP(Japan)
		88 . US	% IN	Chemical
		.028	20 St	Apalysis ;
				Chemical Apalysis per ASTM A751/14a

## MECHANICAL PROPERTIES

BJ1646 7	Product Id
R L 211.0	10°
82.39	18X 8AE*
99.38	181 SLO
73.47	*
45.05	* Parise

NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS.

Technical Dept. Mgr.

KRIS LARK

1/19/2018

013017 H53

vimetco MILL TEST **CERTIFIED SRAC-IQNet** No: 1726 alro Mani IEO 9001/2015 No.10/valid 2020 CERTIFICATE Date: 1/23/2018 SLATINA

CUSTOMER

CONTRACT/ORDER : 2224 BILL OF DELIVERY : 80348517 TRUCK/CONTAINER : MSCU 5764780

MATERIAL

**ALUMINIUM PLATES** 

ALLOY : 6081 LOTIDIMENSIONS (mm): 70190093

1.25"THX48.5"WDX144.5"LT

TEMPER: T651

ACCORDING TO

ASTM 8209; AMS 4027N; ANSI H35.2; ASME SB209; AMS-QQ-A-250/11

ACTUAL	MECH	HANICAL	PROP	ERTIE	3	1 MPa	= 1 N/m	m2 = Ó.	145 ksi	= 0.102	kgf/m	ım2
			1	i ibs =	0,4536	kģ	UTS KSI		YTS		Elon 50:	
							min.	max.	min.	max.	π	ıln.
				Specifi	ed valu	108;	42		35			8
LOT / BA	TCH	C	ASE	NETV	NEIGHT	lbs	***************************************	Meas	ured va	luos;		
70190093 S37116567	CHEM	591437	);591435 7;592325 NALYSIS	8,	783.224	4 :	46.9 46.2		40.4 39.4	- 1		4.5 4.5
BATCH	SI	Fe	Cu	Mn	Mg	Gr	NI	Zn	TI	Ga	٧	Al
337116567	0.61	0.39	0.26	0.1	0.99	0.18	0.000	0,12	0.021	0.011	0.016	REM REM
Min.	0.4		0.15		0.8	0.04						REM
Max.	0.8	0.7	0.4	0.15	1.2	0.36	0.05	0.25	0.15	0.05	0.05	
Max. Remarks	:					Other-	Each- Max	.: 0.05	Olhers	Yotal- M	ax.: 0.	15

REMARKS:

ACCORDING TO: ASTM B209:2014; AMS 4027N:2009; ANSI H35.2:2013; ASME SB209:2015; AMS-QC-A-260/11:1897
We hereby certify that the meterial detailed hereon has been produced and tested according to the requirements of the relavant standards, specification and/or order. Keep in dry conditions, without longe temperatures variations. The differences between metal and air must not exceed 11 °C. Please follow th recommendations of the Aluminium Association Guide for minimizing water statings, istest addition, for the unloading and storage of the material in your premises before usage. Also we cartify that ALRO products complies with REACH logislation no. 1907/2008 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals and CLP legislation no. 1272/2008 on classification, labeling and packaging of sublances and mixtures.

According to

EN 10204:2004

QUALITY CONTROL DEPT.

Marius Olioanu, Eng.

SC ALRO SA SLATINA

ALRO S.A. No.118, Fitted Street Phone: +(40) 0249 435 117; 0249 432 955 airo@airo.ro 23094B-Slatina-ROMANIA Pex: (40) 0249 411 487; 0249 415 992 www.aira.ro

Punct de lucru Sistine Str.Milcov Nr.1, Jud.Qtf Serv. inspecție Calității

cod #1/PO-051/Rev.4/2012

ACIER OUELLETTE INC. 22, boul. J.F. Kennedy Saint-Jérôme, Qué. J7Y 4B6

P0:

Date de livraison Heat #: 701

9004: Josée Brissette

FAL-144-V

CA-4793 49839



GLOBAL VIETNAM ALUMINIUM COMPANY LIMITED

Address: MY XUAN BI-CONAC INDUSTRIAL ZONE, MY XUAN TOWN, TAN THANH DISTRICT,

BA RIA VUNG TAU PROVINCE, VIETNAM

Tel: Fax: +84(0)643924954 +84(0)643924953

### MILL TEST CERTIFICATE

Date: December 20, 2017

PO number: P-17603 Shipping Ref No.: 17-2472 LC No.: DC HMN714904 Date of issue: December 04, 2017

Item Code: 1070600 Die Number: D00203

Alloy & Temper: 6061-T6

Production Description: Flat Bar 25"x4"x 240" 6061-T6 D00203

Length (inch):240

Bundle number: P-17603-027

Heat Number: SXF172102

Date: 10/11/2017

Applicable Specifications, ASTM B221 STANDARDS

CHEMICAL ANALYSIS: %

I	O.	24-	т.	Cu	Mn	-	Zn	903	43	0	ther	Remark:
ı	21	Mg	re	Cu	14711	Ci	ZAL	11	Ai	EACH	TOTAL	Reninia:
	0.651	0.978	0.229	0.139	0.021	0.068	0.011	0.019	97.683	<0.05	<0.10	08/11/2017

### **MECHANICAL ANALYSIS:**

Ult. Strength (ksi)	Yield Strength (ksi)	Elongation % LN 2"	Remark:
41.7	36.9	12.5	08/11/2017

All profiles, showing material shipped match aluminium alloy as per standard, with chemical analysis to match aluminium alloy standard.

We hereby certify that the item listed have been checked and tested in accordance with the specifications noted and have been found to meet all the applicable requirements. Certifications are kept on file for 36 months from the date of purchase and are available for review upon request, referring to ASTM and the PO number.

Quality Manager



TRUNG TÂM KIẾM NGHIỆM CÔNG TY TNHH NHÔM TOÀN CẦU VIỆT NAM GLOBAL VIETNAM ALUMINIUM CO., LTD TESTING CENTER

CERTIFIED INSPECTION REPORT AND TEST RESULTS

FOR EXTRUDED PRODUCTS



### Service Center Metals

Prince George, VA 23875 5850 Quality Way



OUR ORDER NUMBER 950620

CERTIFICATION

ASTM-B221-14 StencilCont

RoHS 2011/65/EU Compliant

MANIFEST NUMBER 368013

DIE NUMBER

DATE OF SHIPMENT

5/23/2018

LOY / TEMPER 6061-T6511

D.Schroeder (Canada)

RB0108

BILL TO

SHIP TO

Quantity Certified

1,111 lbs

CUSTOMER PART NUMBER 5400400637

42 pcs ALREC00695

We hereby certify that the material covered by this report has been inspected in accordance with the most recent certification revision, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the describtion, and that samples representative of the material met the composition limits and had the mechanical properties shown. Items produced and certified as 6061-T6511 also meet the requirements of 6061-T6. SCRB .625x3.000

All aluminum products supplied by Service Center Metals, LLC contain no functional mercury. Neither mercury nor its compounds are used in the manufacture of aluminum products supplied by Service Center Metals have not, to the best of our knowledge, contacted any source of mercury.

SCM is ISO 9001-2015 certified

This product is RoHS-2, REACH, and DFARS compliant.

1 201808829	Mechanical Properties  Tests Lot No.
5/15/18	Test Date
min max	Ultimate Tensile
49.60 49.60	Strength (KSI)
min max	Yield Strength
45.00 45.00	(KSI)
min max	Percent
19.10 19.10	Elongation

Chemical Composition for Aluminum Alloy 6061

Alloy 100 0

001J180501D

20)808829

6061

0.72

0,41

0.28

0.09

0.88

0.09

0.05

0.03

97.45

0.05

0.15

United States of America

Cast #

Lot No.

10 Mn

Ma 10

170

12

Others Total

Melt Source:

Each

SCM products are melted and extruded in the USA

Calvin J. Wiggins, Director of Quality & Technical Services

Rev 3/14/2018

Print Date: 5/23/2018

### Test de dureté Rockwell **Rockwell Hardness Test**

Client / Customer:

LES ACIERS TRANSBEC (1997) LTEE.

Adresse / Address:

4054 BOUL LE CORBUSIER # 201

LAVAL QC H7L5R2

# commande!

7011453

# bon de commande / Purchase order #:

# de matrice / Die #: MS 17042

Description: SQUARE BAR 3/4"

Alliage & frempage / Alloy & temper:

6061 T6 Longueur / Lenght: 6097 mm

# Contrôle / Control #: 84111-1

# Coulée / Cast #: 68402

Dureté Rockwell E /

Min. requis /

Max. permis /

Rockwell E hardness: 93 HRE

Min, required: 88 HRE

Max. permitted: 100 HRE

Composition chimique typique / Typical chemical composition:

	SI	Fe	Cu	Mn	Mg	Cr	Zn	11
6063	0,20 - 0,60	0,35 Max	0.10 Max	0,10 Max	0.45 - 0.90	0,10 Max	0.10 Max	0.10 Max
6005	0,60 - 0,90	0,35 Max	0,10 Max	0.10 Max	0.40 - 0.60	0.10 Max	0,10 Max	0.10 Max
6005A	0.66-0.74	0.14 - 0.28	0.08 - 0.16	0,18-0,26	0.46 - 0.54	0.03 Max	0,05 Max	0,05 Max
6061	0.40 - 0.80	0.70 Max	0.15 - 0.40	0,15 Max	0.80 - 1.20	0,04 - 0.35	0,25 Max	0.15 Max
6351	0.7 - 1.3	0.5 Max	0,10 Max	0,40 - 0,80	0,40 - 0,80		0,20 Max	0,20 Max

Nous certifions que le matériel fourni rencontre les exigences chimiques telles qu'annoncées par la norme ASTM B-221-14 excepté pour la section 8.2 (nombre de spécimen).

We hereby certify that the material supplied meets the chemical properties as published by the ASTM B-221-14 except for section 8.2 (number of specimen).

Sincèrement vôtre,

date: 2017-02-17

Yours truly,

Daniel Alfredo Pelletier Directeur Qualité **Quality Director** 

F.07.04 rev0 Rapport depropriétés mécaniques.doc

1 /20 EHICK X 48.5000" X 144-2000 PÅRT NO

PO/Rel OU-51293

Now certifore que le document reproduit jer est une cople conforme du rapport fourni par le producteur du rasteriel ou les données result

BN61341 Certificate of Mill Test Results

I malyse faite ou un laborature qualifie SIGNE PAR

P) HULAM ROLLED PRODUC

TEST CERTIFICATE

Certificate No: 1104LB8948 BIIVED. Item Part : HULAMIN Order No: 034311E Cust Order No: Shipping FileNo: UR42529 05/04/023A1 PEC-228260 2/961265 RE070629 Combined P/List No : R97923 Cust Ref/Part No: Certificate No: Alloy - Temper Product : PLATE 6061P-T65T +75" x 48.5" x 344.5" HEAD OFFICE: Moses Mabhida Rd. Retermoritzbarg 3201, fc 0 Box 74 Pietermoritzbarg 3200, Sout Telephone: +27 33 33 956 951 - Telefag: -27 33 35 1104LB8948 5061 - T651

Case No:

	_			
Spec		Lot No.		SCHWINGAL ST
K	)	Cast No.		MECHANICAL ICOL KESOLIO
		metal id		10
Min	7	Alloy Spec No		
34.8	(Ksi)	Yield Strength		
42.0	(Ksi)	SIN		
8	(%)	Efongation A60	Mech	
	(%)	Earing	anical Pro	
		Earing TestDate	perfies	All a statement of the
	(Inches)	Gauge		;
D/U.	, -	Bend Test		
	1			

CHEMICAL COMPOSTITION

05/04/023A1

		Max	Min				Owner, State and a female of the
NON.	TUCK	×	5		Cast No.		The state of the s
Comme	2024					***** ** *****************************	
0.00	200	0.8	0.40		51 (%)		
25.38	233	0.7 0			Fe (%)		(
0,70	200	0.40	0.15		Cu (%)		
1.1.0		0.15		ľ	Mn (%)		
1.00			0.8		Si (%)   Fe (%)   Cu (%)   Mn (%)   Mg(%)   Cr(%)   Z		
0.17		0.35	004		Cr(%)		
0.01		0.25			Zn (%)		
0.008		0.15			1 (%)	-	
		25.			Each(%)	,	
		0.15			Zn (%) Ti (%) Each(%) Total(%)		
97.36					AI(%)		

45.7

なな

06/04/11

22

Date de livraison :

Josée Brissette

Saint-Jérôme, Qué. J7Y 4B6

ACIER OUELLETTE INC. 22, boul. J.F. Kennedy

CONFORMS TO: ASME SE-100 ASTM 820907 AMS 4027N AMS-OCA-25071, 08.1997

For purposes of determining Conference with these specifications, an observed value or a calculated value shall be rounded "to the meatest unit" in the last right-hand digit used in expressing the specification. Birds, in Yest Data to Determine Conference with Specifications.

WE HEREBY CERTIFY, THAT THE MATERIAL DESCRIBED ABOVE HAS BEEN TESTED AND COMPLIES WITH THE TERMS OF THE ORDER CONTRACT. THE INSPECTION RESULTS INTICATED IN THE CHEMICAL COMPOSTION HAVE BEEN OBTAINED FROM CAST ANALYSIS.

Dr. A. PHOBOTO(HEAD OF CHEMICAL TESTING)

Ver 2.5.4

V. ManhamithEAO OF PHYSICAL TESTING)

Proxed Date : 12 May 2011

Doc No. 111504 Indexed 1Jun11 by sissup1

Matted, apel, robed and proprieted in Szolli Aren - month Registerations of Robs are 951-574



### Service Center Metals

Prince George, VA 23875 5850 Quality Way

> CERTIFIED INSPECTION REPORT AND TEST RESULTS FOR EXTRUDED PRODUCTS

Made In

DATE OF SHIPMENT

4/4/2018

DIE NUMBER

ALLOY / TEMPER 6061-T6511

SALESPERSON

D.Schroeder (Canada)

MSQ0722

947203

OUR ORDER NUMBER ITEM

CERTIFICATION

ASTM-B221-14 StencilCont

SPECIFICATION

AMS-QQA-200/8 Rev-A obsolete

RoHS 2011/65/EU Compliant

MANIFEST NUMBER CUSTOMER PO 363091

OI div.

Quantity Certified

4,608 lbs

16pcs

BILL TO

CUSTOMER PART NUMBER 5400394875

RIPTION

ALSQ00058 MQSQ-4.500 +:034/-0

We hereby certify that the material covered by this report has been inspected in accordance with the most recent certification revision, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the description, and that samples representative of the material met the composition limits and had the mechanical properties shown: Items produced and certified as 6061-T6511 also meet the requirements of 6061-T6. All aluminum products supplied by Service Center Metals, LLC contain no functional mercury. Neither mercury nor its compounds are used in the manufacture of aluminum products at our facility. Furthermore, aluminum products supplied by Service Center Metals have not, to the best of our knowledge, contacted any source of mercury.

SCM is ISO 9001-2015 certified

This product is RoHS-2, REACH, and DFARS compliant.

The state of the s				
Mechanical Properties	Test Date	Ultimate Tensile	Yield Strengt	
Tests Lot No.		Strength (KSI)	(KSI)	Elongation
1 201804026	3/8/18	min max 49.20 49.20	min max 45.70 45.70	x min max 5.70 18.80 18.80

Print Date: 4/4/2018			- Water		5					<u> </u>	1 1 1	extrude	re melted and	3CM products are melted and extruded in the IISA
United States of America	0.15	0.05	97.37	0.03	0.06	0.10	0.90	0.09	0.33	0.38	0.75	6061	201804026	001J180303K/ 201804026 6061
United States of America	0.15	0.05	97.39	0.03	0.06	0.10	0.89	0.09	0.31	0.38	0.75	6061		001J120303C 201804026
Melt Source:	Total	Each	AL		Zn	lδ	Mg	M	5	Fe	<u> S</u>	Alloy	Lot No.	Cast#
		2						L	y 6061	ım Allo	lumine	for A	omposition	Chemical Composition for Aluminum Alloy 6061

Calvin J. Wiggins, Director of Quality & Technical Services

Rev 3/14/2018

ENIX TUBE COMPANY, INC.

Manufacturer of Stainless Ornamental and Structural Tubing

### CERTIFICATION OF TEST

Sold To:

Ship To:

. QTY SHIPPED: 565.0

HEAT#:

TEST REPORT#: TR014223

16,1205). ·49379

CUSTOMER ORDER#: 4500840983

CUST REF NBR: 161002417

DATE SHIPPED: 10/09/17

SIZE: 3" X 3/8" HRAP

SOURCE: USA

VENDOR: NAS

Specification:

CHEMISTRY THIS COLUMN:

ASTM A276-17

ASME SA276 COND. A

ASTM A479-17 ASME SA479

ASTM A240-16a

ASME SA240

RoHS Compliant

ASTM A262-15, PRACT/ E

CORROSION OK, HRAP

**ASTM A484-16** 

ASME SA484

ASME SA 480-16

ASTM A480-16b

NO WELD REPAIR

EN 10204 2.2

MILS 5059D AMEND 3 AMS5511H/AMS5513J

NACE MR0175/MR0103

AMS 5639J / AMS 5647K

NO WELD: BAR

Report Date: 05/17/17

ORDER#: 434128

QTY SHIPPED EQUALS LBS.

TYPE 304/304L DUAL CERTIFIED

UNS# 30400 / 30403

ASTM A666-15

AMS-QQ-S-763D COND A

CHEMISTRY ONLY

MERCURY IS NOT USED BY US AS AN ALLOYING MATERIAL NOR IS METALLIC MERCURY HANDLED IN THE VICNITY OF OUR PROCESSING LINES, MATERIAL IS FREE OF MERCURY CONTAMINATION. MATERIAL HAS BEEN HEATED TO A MINIMUM OF 1900 DEG. F AND IS SUBSEQUENTLY COOLED RAPIDLY TO PREVENT CARBIDE PRECIPITATION, SOLUTION ANNEALED

### **Chemical Analysis**

С	MN	Р	s	SI	CR	NI	MO	cu	co	N2	Ti
.018	1.81	.031	.002	.33	18.06	8.02	.33	.40	NA	.07	NA

### Physical Analysis

	YIE	LD	TEN	SILE	TTO	IER
Hardness	PSI	MPA	PSI	MPA	Percent EL	Percent RA
RB 89	51950	NA	89590	NA	53	69

THE CHEMICAL ANALYSES ARE CORRECT AS CONTAINED IN OUR CORPORATE RECORDS. MECHANICAL PROPERTIES ARE MEASURED FROM SHEET COIL AND PLATE BEFORE CUTTING

Melted & MFG in USA DFARS 252.225 Subsection Compliant, FAR BAA, DFAR BAA, FAR TAA Complies

CERTIFIED BY Inventory Control Dept.

1185 WIN DR , BETHLEHEM, PA., 18017 - (610) 865-5337

FAX NUMBER: 610-865-4073

TÜV CERT No. 01 100 030458

чонаниергизгецдивимы тезт сеппсатексеци, де сианавие EN 10204:2004 / 3.1

IND.: / INL., /INL.,

0000139304

Datum / Date / Data

15616 50822

Unsere Innere Verweisung /Our int. Ref/ N/ ref int

5600039444 000080

26.02.2018

Spezifikation / Standards / Normas

TYPE 304/UNS S30400 and TYPE 304L/UNS S30403 acc. to ASTM A276/A276M-16a, ASTM A182/A182M-16a, ASTM A193/A193M-16, ASTM A479/A479M-16a, ASTM A320/A320M-15a, ASTM A314-15, ASTM A262-15 Pract. E, AMS QQ-S-763D, AMS 5639J, AMS 5647K, ASME SA479/SA479M, ASME SA276, ASME SA182/182M, ASME SA 193/SA193M, ASME SA320/SA320M, NACE MR0175-2015, execution as per ASTM A484/A484M-16.

Endquitiger Kunde / Final Customer / Cliente Final Kunde / Customer / Cliente C112257 C112257.8 Bestell Nr./Order Nr./ Enc.Nr. Bestell Nr./ Order Nr./ Enc.Nr. Bunde / Bundle / Atados Produktaruppe / Product Group / Grupo Produto Gewicht / Weight / Peso AISI 304/L CD SQ 1" 1.050 lb Werkstoff-Nr. Werkstoff-Normbezeichnung / Material standard grade / Norma do material Material-no. 1.4307 X 2 CrNi 18-9 Qualidade Beschreibung / Description / Descrição Stainless steel cold drawn square bars, US DFAR 252.225-7009: MELT SOURCE; United Kingdom / MFG: Portugal. Schmelzen Nr. Chemische Analyse in % / Chemical composition in % / Analise quimica em % Cast nr. Fusão ar P C Si Mn S Cr 0.015 0.370 1.710 0.031 0.024 18.280 Ni 56171822 8.080 EAF+AOD Mo 0.320 Co 0.126 Cu 0.470 N 0.070 Ti 0.003 Al 0.006 ASTM E399 ASTM A370 Kerbschlogarbeit Dehngrenze Dehnung Streckgrenze Zuafestickell Einschnürung Proben Nr. Impact Test Yield point 1% point Tensile strength Elongation Reduction of area Test no. Resiliência Tensão limite ite de extens Tensão de rotura Alongamento Coef. Estrição Amostra no. {Charpy V} Rp 0,2 % Rp 1,0% Rm A5 4D Z (Ksi) [Ksi] [Ksi] [1] [%] [%] [%] 3067183.01.01 84 90 104 42.8 44.9 68.0 ASTM E10 ASTM A262 Practice E Wärmebehandlung Visuelle Kontrolle Heat treatment X Korroalonabeständigkeit Härte 223 (X) Visual Inspection Tratamento térmico Hardness IC Tost Ok Inspecção visual Dureza [HB] Corresão Intercristalina Ok Abnahmebeauftragter ASTM A484 ASTM E112 Annealed Quenched 1900 °F (1050 °C) Authorized Inspection Representative Korngrösse X Dimensional inspection Grain size Inspector de Qualidade Inspecção dimensional (water quenched) Tamanho de grão Ok Makroskopische Untersuchung Macrographic test Verwechslungsprüfung X Test of identity [30] Material free from Vasco Ferreira (Ω - VF) Teste de identificação Ok segregation defects. Ok Bollinghaus Steel, SA Bemerkungen / Remarks / Observações Hiermit bestätigen wir, dass das Material der oben genannten Spezifikation entspricht. Country of origin: Portugal, No weld repair done.

Material is free of mercury and radiation contamination.

We confirm that this material meets the specification according the mentioned standards.

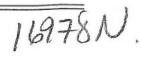
Confirmamos que este material respeita as especificações de acordo com as normas referidas.

12 CDCD2 10 K

2401B

Dart.

### Chemical certification Certification chimique



Order Num / No. Command	Vendor / Fournisseur	Country of origin / Pa			Material ID # / No. matérie
AC-16978	46	SLOVENIA-EU	05/02/16	295845	
Grade / Nuance	Conditions		0		
4140 PLT / W	QUENCHED AND	TEMPERED, SAW C	UT		
Shape / Forme	Size / Dimension S	pecifications (LL)			
PLT N		STM A829/A826M			
	M				
	Chemi	cal composition /	Analyse chimique		
Carbon (C)	•	Silicon (Si)	Manganes		Phosphorus (P)
Mini / maxi 0.3700 / 0.4	400	0.1500 / 0.3500	0.6500 / 1	1.1000	0.0100 / 0.0190
Actuel % 0.421		0.261	0.753		0.011
Sulphur (S)		Chromium (Cr)	Nickel (Ni)		Molybdenum (Mo)
Mini / maxi 0.0200 / 0.0	400 0	0.7500 / 1.2000	0.1000 / 0	0.2000	0.1500 / 0.2500
Actuel % 0.001		0.980	0.170		0.160
Cooper (Cu	)	Vanadium (V)	Aluminum	(AI)	Tungsten (W)
Mini / maxi 0.1900 / 0.2	900 (	0.0400 / 0.0500	0.0000 / 0	0.0000	0.0000 / 0.0000
Actuel % 0.197		0.037	0.024		0.000
Cobalt (Co	) Titan	nium (Ti)			
Mini / maxi 0.0000 / 0.0	0.0000 /	0.000 0.00	000 / 0.0000 0.	0.000 / 0.0000	0.0000 / 0.0000
Actuel % 0.000	0.00	00	0.000	0.000	0.000
	Mechanie	cal properties / Pro	opriétés Mécaniques		
Yield strenght / Élasticité To	ensile / Rés. à la traction	Elongation / Allon. (%)	Red. of area / Surface (%)	RC	Surface Hd / Dureté
0.000 PSI	0.000 PSI	0.00	0.00		285 BHN

### Note:

We certify that the above data has been verified and are conform to an original mill or supplier certificate supplied to us with the material Nous certifions que les données ci haut on été vérifier et sont conformes d'après un certificat originale qui nous a été fourni par notre fournisseur.

Prepared by: / Préparé par:

**Customer PO#** 

Invoice No

Shipper No

**Heat Number** 

AC16979

100936

94452

1-2027

93012



16979 N



T: +44 (0) 1653 602122

F: +44 (0) 1653 695856

E: export@bright-steels.com

Certificate Of Analysis

Date: 07/02/2018

ACIER OUELLETTE INC. DIV SALABEI

umber: 114375

VAT Registration No. 166 8255 35

Invoice To:	Deliver To:
	1
1	1
1	•

UNLESS AGREED OTHERWISE THE MATERIAL DETAILED BELOW HAS BEEN INSPECTED AND TESTED ACCORDING TO PROCEDURES RELATIVE TO OUR BS EN 150 9001 REGISTRATION TO COMPLY WITH THE REQUIREMENTS OF THE SPECIFICATION AND ORDER. CONFORMS TO EN 10204 2.2. ORIGINAL CERTIFICATES ARE HELD ON FILE.

ORDER	DESCRIPTION AND	CAST NO. BATCH NO	D	ESPATCH	
LINE	ORDER DETAILS	the standard to stronger to become any	WEIGHT	UOM	QUANTITY

BRIGHT MILD FLAT TO ASTM A29-03 (A108-99) 1018

IN 11'6"/12'6" LENGTHS

TARIFF NO. 7215.50.11

/4" X 2.1/4	" 4	lai .	1-202	7 PRD-	12750701		2210	6 LE	IS	1005 KGS
) C %	SI%	Mn %	P%	S %	Cr%	. Mo %	NI %	Cu %	Sn %	Al %
0.170	0.210	0.760	0.009	0.034	0.150	0.030	0.130	0.200	0.023	0.002
V %	N %	1	L							

V % N % 0.020 0.0109

BRIGHT MILD FLAT TO ASTM A29-03 (A108-99) 1018 IN 11'6"-12'6" LENGTHS

TARIFF NO. 7215.50.11

2*	1/4" X 4"			1-257	6 PRD-	12751201	2 11 nd 144 min	2066	L.E	S	937 KGS
CAST	C %	Si %	Mn %	P%	S %	Cr%	Mo %	NI %	Cu %	Sn %	Al %
1-2576	0.160	0.220	0.750	0.010	0.031	0.090	0.020	0.110	0.200	0.012	0.002
	V%	N %	1								
	0.005	0.0105	1								

					1.74
3.	2.1/2" X 3.1/2"	1-3383 PRD-1275	0801 2161	LBS	980 KGS
19	A. 1/4 A G. 1/4	1-0000 1110-1210			

Signed: The in-

Registered In England No 159061

Page 5 of 7